ADMINISTRATION OF SECTION 404 OF THE CLEAN WATER ACT

(100–79)

HEARING

BEFORE THE

SUBCOMMITTEE ON
INVESTIGATIONS AND OVERSIGHT

OF THE

COMMITTEE ON
PUBLIC WORKS AND TRANSPORTATION
HOUSE OF REPRESENTATIVES

ONE HUNDREDTH CONGRESS

SECOND SESSION

SEPTEMBER 14, 1988

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CONTENTS

TESTIMONY

Page

Brennan, James, Assistant Administrator for Fisheries, National Oceanic and Atmospheric Administration, U.S. Department of Commerce; accompanied by John Hall, Acting Chief, Habitat Policy and Conservation Division, National Marine Fisheries Service 194
Curtin, Neal P., Deputy Director Resources, Community and Economic Development Division, General Accounting Office, accompanied by Bob Robinson, Group Director, and Edward A. Niemi, Evaluator, GAO 15
Doyle, John S., Jr., Principal Deputy Assistant Secretary of the Army (Civil Works); accompanied by David B. Barrows, Assistant for Regulatory Programs, Office of the Assistant Secretary of the Army, and Bernard N. Goode, Chief, Regulatory Program, U.S. Army Corps of Engineers 338
Dunkle, Frank, Director, U.S. Fish and Wildlife Service, U.S. Department of Interior; accompanied by Ralph Morgenweck, Assistant Director, U.S. Fish and Wildlife Service 177
Goldman-Carter, Janice L., counsel, Fisheries and Wildife Division, National Wildlife Federation 221
Hanmer, Rebecca, Acting Assistant Administrator for Water, U.S. Environmental Protection Agency; accompanied by David G. Davis, Director, Office of Wetlands Protection 343
Hausmann, Scott, president, Association of State Wetlands Managers 496

SUBMISSIONS FOR THE RECORD

Bentley, Hon. Helen Delich, a Representative in Congress from Maryland, statement 37
Brennan, James W., Assistant Administrator for Fisheries, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, statement 199
Curtin, Neal P., Deputy Director, Resources, Community and Economic Development Division, General Accounting Office, statement 44
Doyle, John S., Jr., Principal Deputy Assistant Secretary of the Army (Civil Works):
    Responses to supplemental questions from Representative James L. Oberstar 373
    Responses to supplemental questions from Representative Arlan Stangeland 376
    Statement 383
Dunkle, Frank, Director, U.S. Fish and Wildlife Service, U.S. Department of Interior, statement 182
General Accounting Office:
    Report: "Wetlands—The Corps of Engineers' Administration of Section 404 Program," July 1988 53
    Data on permit denials 31
    Data on file review 42
Goldman-Carter, Janice L., counsel, Fisheries and Wildlife Division, National Wildlife Federation, statement 231
Hammerschmidt, Hon. John Paul, a Representative in Congress from Arkansas, statement 4
Hanmer, Rebecca, Acting Assistant Administration for Water, U.S. Environmental Protection Agency:
    Responses to supplemental questions from Representative James L. Oberstar 402
    Statement 409

Page
Hanmer, Rebecca, Acting Assistant Administration for Water, U.S. Environmental Protection Agency—Continued
  Enforcement data (charts) 351
  News release—May 13, 1987, regarding first director of EPA's new Office of Wetlands Protection—organizational function summary 418
  Wetlands Strategic Planning Initiative—Briefing before the Administrative and Deputy Administrator, April 25, 1986—Briefing and Background Material 420
  Wetlands Strategic Planning Initiative—Draft Problem Assessment, May 1986 437
Hausmann, Paul Scott, president, Association of State Wetlands Managers, statement 500
Hayes, Hon. Jimmy, a Representative in Congress from Louisiana, statement.. 8
Johnson, Hon. Nancy L., a Representative in Congress from Connecticut: Paper "Artificially Created Wetlands: Myth or Mysticism" 529
Oberstar, Hon. James L., a Representative in Congress from Minnesota:
  Supplemental questions to Army Corps of Engineers and responses 373
  Supplemental questions to Environmental Protection Agency and responses 402
Stangeland, Hon. Arlan, a Representative in Congress from Minnesota:
  Statement 9
  Supplemental question to Army Corps of Engineers and responses 376
Young, Hon. Don, a Representative in Congress from Alaska:
  Letter to Hon. James L. Oberstar 12
  Questions submitted to Army Corps of Engineers and responses 14

ADDITION TO THE RECORD

Cross, Dr. Ford A., Director of the Beaufort Laboratory, Southeast Fisheries Center, National Marine Fisheries Service, to NOAA, statement 505

APPENDIX

Article from the National Wetlands Newsletter, May–June 1988 entitled, "An Assessment of Wetland Mitigation Practices in Washington State" 543

ADMINISTRATION OF SECTION 404 OF THE CLEAN WATER ACT

WEDNESDAY, SEPTEMBER 14, 1988

House of Representatives,
Subcommittee on Investigations and Oversight,
Committee on Public Works and Transportation,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:45 a.m., in room 2167, Rayburn House Office Building, Hon. James L. Oberstar (chairman of the subcommittee) presiding.

Mr. Oberstar. The Subcommittee on Investigations and Oversight will come to order.

This morning we convene to review the U.S. Army Corps of Engineers' Administration of aspects of Section 404 of the Clean Water Act, those aspects that deal with permits for dredged and filled materials.

The Clean Water Act is an environmental law whose goal is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. Congress wrote it very clearly. Congress intended and the courts have reaffirmed that "the waters of the United States" should be interpreted in the broadest sense possible. Wetlands are waters of the United States.

Wetlands support many threatened and endangered plant and animal species. They are the resting place and the nesting place for many species of migrating birds including our dwindling waterfowl populations. Wetlands provide habitat and food for fish and shellfish on which a large part of our commercial fishing industry depends. They cleanse pollutants. They help prevent floods. They act as reservoirs for dry periods and recharge areas for groundwater. They also provide many educational and recreational benefits. As invaluable as they are in both economic and environmental terms, wetlands nonetheless are disappearing at an alarming rate, somewhere between 300,000 and 500,000 acres per year. Over the last 200 years, 30 to 50 percent of the wetlands in the lower 48 States have been converted to other uses.

Concerned about the continuing loss of these wetlands, the subcommittee asked the General Accounting Office in January of 1987 to review how well Section 404 was protecting wetlands. We asked them to look at the extent to which the Corps, in granting permits for dredge and fill activities, considers the comments of other Federal agencies, and the extent to which the Corps seeks out unpermitted discharges and permit violations and imposes sanctions on violators.

The subcommittee is aware that many activities that destroy wetlands are outside of the authority of the Clean Water Act either because they do not constitute a discharge or because they are exempted under the 1977 Amendments to the Clean Water Act. It is then all the more important that the environmental mandate of the Clean Water Act be followed where it can protect the wetlands, which are a subset of and not a category separate from waters of the United States.

The General Accounting Office has given us a comprehensive response to our questions. They have done a superb, detailed, thorough, agonizingly painstaking job of reviewing this issue. We look forward to the GAO's formal presentation to the committee and to discussing this report with the various Federal agencies most involved with the dredge and fill program and with some of the public interest groups that have been deeply involved in Section 404 and the wetlands issue. The Corps and EPA and the other resource agencies have had over 15 years to implement the mandate of Section 404, the 1972 Clean Water Act, and to protect and to preserve this priceless resource of our Nation's wetlands. We can ill afford another 15 years of false starts and bureaucratic finger pointing.

The Chair recognizes the gentleman from Pennsylvania, Mr. Clinger.

Mr. CLINGER. Thank you very much, Mr. Chairman. I want to join you in welcoming the witnesses who will be testifying before the subcommittee today and particularly want to acknowledge the presence of John Doyle, Deputy Assistant Secretary of the Army for Civil Works and a former member of the staff here in the House Public Works and Transportation Committee, whose appearance before us is always welcome and very much appreciated.

Today the subcommittee meets to review the findings and recommendations of the General Accounting Office regarding the Army Corps of Engineers' administration of the permit program authorized under Section 404 of the Clean Water Act. As most knowledgeable observers agree, the program was born in controversy and continues some 16 years later to be the subject of controversy between both the agencies responsible for its implementation and the regulated community.

While it was once argued that Section 404, governing the discharge or deposit of dredge and fill material in United States waters, was not intended to be a statute for the protection of the Nation's wetlands, that issue has been long resolved through court decisions and subsequent Congressional actions. What remains however, is a relatively narrow band of regulated uses under Section 404, while the vast majority of activities which might have a detrimental impact on wetlands go unregulated. This is not to criticize, but only to explain that the program we are addressing today is anything but a comprehensive wetlands protection program.

Depending on whom you talk to, the Corps of Engineers is doing either a terrific job or a lousy job of implementing the Section 404 program. Some criticism obviously is inevitable, nevertheless, consistency and uniformity in the Corps' administration of Section 404 has been identified as an area in which improvement could be made. Section 404 enforcement seems to be a less than full time activity, in part because the Corps and EPA seem to be unable to agree upon by whom and under what circumstances surveillance and enforcement activities should be conducted. While we all recognize that dollar and personnel limitations at most Federal agencies affect priorities, continued ambivalence by those charged with enforcing the law is not particularly helpful.

Timeliness of permit decisions and uncertainty in the decision process are two more program elements which could be improved according to those most directly affected by Section 404. From what I understand, most developers are willing to live with permit denials, provided that decisions are rendered in a timely fashion. It is equally important that affirmative decisions once made, are reversed only for the most substantial of reasons. As concerned as we are to provide for the protection of our valuable wetland resources, we must also realize that there are economic costs associated with slow-downs in permit processing and conflicting determinations.

Mr. Chairman, we obviously have a far-ranging variety of issues to explore with our witnesses today and I look forward to their testimony and a productive day's session. As I conclude I would note that the subcommittee has received a letter from the Hon. Don Young, the Congressman for all Alaska, commenting on certain aspects of the Section 404 permit program applicable to that State. I would ask unanimous consent that Congressman Young's letter be included in the record at an appropriate place.

Mr. OBERSTAR. Without objection, Congressman Young's letter will be included in the record following the opening statements of committee members.

Does the gentleman from New York wish to make an opening comment?

Mr. MOLINARI. No, Mr. Chairman.

Mr. OBERSTAR. The Chair recognizes the gentleman from Arkansas. We are very pleased to have the ranking member of the full committee with us, the Honorable John Paul Hammerschmidt.

Mr. HAMMERSCHMIDT. Thank you very much, Mr. Chairman. I commend you and the ranking member, Mr. Clinger, for holding these very important hearings on the GAO's report on the Corps of Engineers' administration of the Section 404 program. I am not going to take time from our very important witnesses this morning. I would just like to put a statement in the record, Mr. Chairman.

Mr. OBERSTAR. Without objection, the gentleman's statement will be included at this point in the record.

[Mr. Hammerschmidt's statement follows:]

OPENING STATEMENT
HONORABLE JOHN PAUL HAMMERSCHMIDT (R.- ARK.)
SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT
ADMINISTRATION OF THE SECTION 404 PROGRAM
SEPTEMBER 14, 1988

THANK YOU, MR. CHAIRMAN. I COMMEND YOU AND THE SUBCOMMITTEE'S RANKING REPUBLICAN MEMBER, BILL CLINGER, FOR PROVIDING THIS OPPORTUNITY TO REVIEW THE U.S. ARMY CORPS OF ENGINEERS' ADMINISTRATION OF THE SECTION 404 PERMIT PROGRAM, GOVERNING THE DEPOSIT OF DREDGE OR FILL MATERIALS IN THE WATERS OF THE UNITED STATES.

MR. CHAIRMAN, PERHAPS NO PROGRAM AUTHORIZED UNDER THE CLEAN WATER ACT HAS GENERATED MORE CONTROVERSY THAN SECTION 404. WHEN ORIGINALLY ENACTED IN 1972, RESPONSIBILITY FOR PROGRAM ADMINISTRATION WAS ASSIGNED TO THE CORPS OF ENGINEERS IN RECOGNITION AND PRESERVATION OF ITS ALREADY EXISTING AUTHORITIES TO MAINTAIN NAVIGATION ON THE NATION'S RIVERS AND HARBORS. SUBSEQUENT COURT DECISIONS AND LATER ENACTMENTS HAVE RESULTED IN A LAW WHICH ASSIGNS ENVIRONMENTAL PROTECTION RESPONSIBILITIES TO THE CORPS, WHILE MANDATING A CONTINUING CONSULTATIVE, AND IN SOME CIRCUMSTANCES A VETO ROLE, FOR THE EPA. PUT THIS ALL IN A STATUTE WHICH OTHERWISE FORMS THE BASIS FOR A LARGE PORTION OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY'S OVERALL OPERATIONS, AND YOU COULD SAY THAT THE RESULTING PROBLEMS OF INTERAGENCY COORDINATION AND INCONSISTENCY IN APPLICATION ARE PREDICTABLE.

SOME BLAME THE STATUTE, AND SAY THAT IMPROVEMENTS STILL CAN AND MUST BE MADE; OTHERS BLAME THE CORPS OF ENGINEERS FOR ITS DECENTRALIZED APPROACH TO ADMINISTERING THE PROGRAM; OTHERS CITE THE PERCEIVED UNBENDING PHILOSOPHIES OF THE ENVIRONMENTAL RESOURCE AGENCIES AS PRECLUDING ECONOMICALLY SOUND AND VITAL DEVELOPMENTAL ACCOMPLISHMENTS. NEITHER SIDE TO THE ORIGINAL CONTROVERSY GIVING BIRTH TO THE SECTION 404 PROGRAM SEEMS PARTICULARLY WILLING TO GRANT TOTAL PROGRAM RESPONSIBILITY TO EITHER THE CORPS OR EPA.

TODAY'S HEARING, AIDED IN LARGE PART BY THE ANALYSIS AND FINDINGS OF THE GENERAL ACCOUNTING OFFICE, WILL EXAMINE THE MANAGEMENT OF THE SECTION 404 PROGRAM IN GREAT DEPTH. WE HAVE THE OPPORTUNITY TO GAIN A CLEARER UNDERSTANDING OF BOTH THE POSITIVE ASPECTS OF PROGRAM ADMINISTRATION AND THE SHORTFALLS AND LIMITATIONS. WHILE I REMAIN UNCONVINCED AT THIS TIME THAT AMENDMENT TO THE LAW IS NECESSARY, THE GAO, AT LEAST, HAS DETERMINED THAT THERE ARE ADMINISTRATIVE IMPROVEMENTS WHICH COULD BE MADE BOTH BY THE CORPS AND THE OTHER FEDERAL AGENCIES, WHICH WOULD MAKE FOR BETTER PROGRAM IMPLEMENTATION.

IT APPEARS THAT EVEN IN THOSE AREAS WHERE THE CORPS AND EPA HAVE AGREED TO WORK TOGETHER, THEY HAVE HAD DIFFICULTY. FOR EXAMPLE, THE 1987 AMENDMENTS GRANTED TO THE CORPS AND EPA NEW ADMINISTRATIVE PENALTIES AUTHORITY WITH REGARD TO BOTH PERMITTED AND NON-PERMITTED USES IN WETLANDS. NOW, SOME 19 MONTHS AFTER ENACTMENT, IT IS NOT UNREASONABLE TO EXPECT THAT THE TWO AGENCIES SHOULD HAVE REACHED SOME COOPERATIVE UNDERSTANDING ON ENFORCEMENT. THAT HAS NOT HAPPENED, HOWEVER, AND SEEMS INDICATIVE OF THE TYPES OF COORDINATION DIFFICULTIES WHICH HAVE CHARACTERIZED THE SECTION 404 PROGRAM.

MR. CHAIRMAN, THE SUBCOMMITTEE'S HEARING TODAY GIVES US THE OPPORTUNITY TO EXAMINE THESE AND RELATED QUESTIONS. AGAIN, I CONGRATULATE YOU AND THE RANKING REPUBLICAN MEMBER FOR ADDRESSING THIS IMPORTANT TOPIC, AND LOOK FORWARD TO A PRODUCTIVE DAY'S SESSION.

THANK YOU, MR. CHAIRMAN.

Mr. **Oberstar.** Gentleman from Georgia, Mr. Rowland?

Mr. **Rowland.** No comments at this time, Mr. Chairman.

Mr. **Oberstar.** The Chair would ask unanimous consent to include in the record the following remarks already agreed to and the statement from the gentleman from Louisiana, a member of the full committee, Mr. Hayes.

Mr. **Clinger.** Mr. Chairman, I would also ask unanimous consent at this point that a statement from the Hon. Arlan Stangeland be admitted into the record and also that he be allowed to submit some questions for the record.

Mr. **Oberstar.** Without objection, the statement will be included in the record following that of Mr. Hayes and the questions will be set forth to the witnesses and the remarks in response to those questions will be included in the record as well as transmitted to Mr. Stangeland.

[The prepared statements of Representative Hayes and Representative Stangeland follow:]

JIMMY HAYES
7TH DISTRICT, LOUISIANA

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STATEMENT OF

CONGRESSMAN JIMMY HAYES

OF LOUISIANA

BEFORE THE COMMITTEE ON
PUBLIC WORKS AND TRANSPORTATION

SUBCOMMITTEE ON
INVESTIGATION AND OVERSIGHT

SEPTEMBER 14, 1988

Mr. Chairman, I appreciate your affording me the opportunity to speak before the subcommittee on the issue of wetland loss and the enforcement of the Clean Water Act programs. As a member who represents the state with the highest rate of erosion, just over 60 square miles per year, I commend the Chairman for both recognizing the problem, as well as, calling for action and accountability.

I have stated before that there are three major concerns I have regarding our efforts on wetland management. I see not only a lack of centralized decision making, but also the insufficient dissemination of information on the success of some programs and projects, and an absence of proper oversight. I believe that a hearing, such as this one held today, addresses this last concern of mine.

There are at least eight federal and five state agencies claiming jurisdiction within my state alone for controlling wetland erosion and degradation. Without oversight of their actions, Congress will never know if any of the agencies are considering the comments of other departments, or even whether they are adequately fulfilling their missions.

In order to put the problem of wetland loss into proper perspective for my fellow colleagues, in my state, the coastal plain provides $87 million of shrimp, $10 million worth of oysters, and $18 million of fur (highest in the nation) per year into our economy, while being the temporary habitat for 66% of the entire waterfowl population of North America. I do not know of any member who feels his district could stand to lose such an economic goldmine without a fight. I can assure you I intend to fight and I applaud the action taken today by Chairman Oberstar.

~~OPENING~~ STATEMENT of
HONORABLE ARLAN STANGELAND
I&O SUBCOMMITTEE
WETLANDS HEARING
SEPTEMBER 14, 1988

THANK YOU, MR. CHAIRMAN. I COMMEND YOU FOR YOUR LEADERSHIP AND INTEREST IN WETLANDS PROTECTION AND THE CLEAN WATER ACT'S SECTION 404 PROGRAM. LET ME ALSO EXTEND MY APPRECIATION FOR THE OPPORTUNITY TO PARTICIPATE IN TODAY'S HEARING. THE REPORT OF THE GOVERNMENT ACCOUNTING OFFICE AND THE TESTIMONY OF OUR WITNESSES SHOULD PROVE INVALUABLE TO THIS COMMITTEE AS WE CONTINUE OUR REVIEW OF THE WETLANDS PROGRAM.

LIKE YOU, MR. CHAIRMAN, I HAVE A STRONG AND COMPELLING INTEREST IN WETLANDS PROTECTION. FRESH WATER WETLANDS, SUCH AS THOSE IN MINNESOTA'S PRAIRIE POTHOLE REGION, AND COASTAL WETLANDS ARE EXTREMELY IMPORTANT TO OUR ENVIRONMENT, OUR ECONOMY, AND OUR WAY OF LIFE. WE RECOGNIZE THAT THESE UNIQUE AREAS WHERE LAND AND WATER MEET ARE VALUABLE NATURAL RESOURCES. THEY HELP IMPROVE WATER QUALITY AND FLOOD CONTROL, PROVIDE FISH AND WILDLIFE HABITAT, AND SUPPORT FISHING AND HUNTING ACTIVITIES.

FEDERAL LEGISLATION SUCH AS THE CLEAN WATER ACT AND THE FOOD SECURITY ACT (INCLUDING "SWAMPBUSTER") CONTRIBUTE TO THE WETLANDS PROTECTION EFFORT. STATE AND LOCAL LAWS ALSO ADDRESS THIS INCREASINGLY IMPORTANT ENVIRONMENTAL CONCERN.

THE EXISTING REGULATORY FRAMEWORK, HOWEVER, HAS BEEN THE FOCUS OF EXTENSIVE DEBATE AND -- I MIGHT ADD -- CRITICISM. BOTH THE REGULATED COMMUNITY AND THE ENVIRONMENTAL GROUPS HAVE CRITICIZED EPA AND THE CORPS FOR THEIR EFFORTS TO IMPLEMENT THE 404 PROGRAM. AS POINTED OUT BY THE NATIONAL WETLANDS POLICY FORUM, KEY CONCERNS INVOLVE THE PROGRAM'S COMPLEXITY, INCONSISTENCY AMONG AGENCIES, LACK OF FLEXIBILITY, LENGTHY PERMIT DELAYS, AND INADEQUATE OR UNFAIR ENFORCEMENT POLICIES.

I HAVE EXPRESSED CONCERNS ABOUT THE SECTION 404 AND "SWAMPBUSTER" PROGRAMS ON FREQUENT OCCASIONS. ADMITTEDLY, PART OF THE PROBLEM INVOLVES THE LACK OF FUNDING AND THE NUMBER OF PLAYERS WITH DIFFERENCE REGULATORY MISSIONS AND OBJECTIVES. IN THEIR EFFORT TO PROTECT WETLANDS, FEDERAL AND STATE ENVIRONMENTAL REGULATORS MAY BE CHALLENGING ESTABLISHED PROPERTY RIGHTS, CONSTITUTIONAL GUARANTEES, AND BASIC NOTIONS OF FAIRNESS. FOR EXAMPLE, FARMERS AND OTHERS ARE OFTEN PREVENTED FROM SIMPLY MAINTAINING PREVIOUSLY CONSTRUCTED AGRICULTURAL DRAINAGE DITCHES.

THIS IS NOT CONSISTENT WITH CONGRESSIONAL INTENT. IN 1977, CONGRESS AMENDED THE CLEAN WATER ACT'S WETLAND PROVISIONS TO ALLOW SPECIAL EXEMPTIONS FOR NORMAL FARMING AND MAINTENANCE OF DRAINAGE DITCHES. WE MADE THESE CHANGES OUT OF CONCERN THAT THE MASSIVE PERMITTING PROGRAM WOULD HAVE AN UNREASONABLE AND ADVERSE EFFECT ON AGRICULTURE. IN RECENT YEARS, HOWEVER, FEDERAL AND STATE AGENCIES HAVE NOT PROPERLY IMPLEMENTED THE FARMING AND DRAINAGE DITCH EXEMPTIONS.

MR. CHAIRMAN, WE CAN STRENGTHEN OUR PROTECTION OF WETLANDS BY INCREASING OPPORTUNITIES AND INDUCEMENTS FOR PRIVATE PROTECTION. PUBLIC EDUCATION, TAX INCENTIVES, AND LIMITED SUBSIDIES ARE SUCCESSFUL, PROVEN METHODS TO CONSERVE WETLANDS. THESE NONREGULATORY APPROACHES OFFER GREAT PROMISE: THEY RESPECT PRIVATE PROPERTY RIGHTS; THEY INCREASE THE AWARENESS AND PARTICIPATION OF CITIZENS; AND, THEY KEEP THE FEDERAL GOVERNMENT'S ROLE AT A LEVEL THAT IS REASONABLE, YET RESPONSIVE.

MR. CHAIRMAN, LET ME CONCLUDE BY WELCOMING OUR DISTINGUISHED WITNESSES, PARTICULARLY JOHN DOYLE WHO WORKED FOR YEARS ON THE STAFF OF THIS COMMITTEE. HE HAS GRAPPLED WITH THIS ISSUE. HE RECOGNIZES THE REAL AND PERCEIVED PROBLEMS. WITH HIS EXPERTISE AND THE HELP OF OUR OTHER WITNESSES, PERHAPS WE CAN WORK TOWARD SOME SOLUTIONS IN THE FUTURE.

DON YOUNG
Congressman for All Alaska

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September 13, 1988

The Honorable James L. Oberstar
Chairman
Subcommittee on Investigations and Oversight
Committee on Public Works and Transportation
U.S. House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

It is my understanding that your subcommittee is planning to hold a hearing on the Army Corps of Engineers' and other resource agency administration of the so-called "Section 404 permitting process." I would respectfully request that my comments be included in the hearing record.

Alaska is unique in the world of wetlands regulations because of the total amount of land that is arguably within Section 404 coverage. The Corps has asserted that because of the vegetation that is indigenous to permafrost, all permafrost areas are subject to 404 coverage. This represents approximately 60% of the total land mass of the state. The Corps has also asserted that all watershed hillsides are included under wetlands jurisdiction. This represents an additional 15% of the land mass of the state. When you consider that 20% of the State of Alaska is rock and ice you quickly come to understand that virtually no development in the State of Alaska can take place without first gaining a Corps regulatory approval.

The requirement that any development project undergo full Corps regulatory review has represented a serious obstacle to economic development in Alaska. This review has also hindered the nation's development of the energy and strategic mineral base necessary for long term economic health and national security. Difficulties surrounding North Slope Oil production projects permits currently threaten several hundred million barrels of crude oil production. In addition current Alaska region regulatory backlogs are seriously hampering independent gold mining efforts. The net result of these difficulties is reduced economic growth for my state and reduced strategic production for the nation.

The expansive 404 jurisdiction has also created an undue hardship on individual home and business owners. Because the exact areas which are subject to wetlands jurisdiction are sometimes difficult to determine, there have been numerous examples of people who wished to build an addition onto an existing home or business, received a building permit from the local government, constructed the addition, only to have the Corps require that the the addition be removed for a failure to obtain a 404 permit.

While I am fully aware of the administrative and regulatory burden which we in the Congress have imposed on the Corps is extensive, I firmly believe that many of the existing problems in my state could be alleviated by better planning, resource allocation and by the development of a good working relationship between the permit applicant and the Corps. Currently, relations between those industries requiring 404 permits and the Corps in Alaska can only be described as strained. This lack of a meaningful working relationship has required the intervention and attention of the Alaska Congressional delegation and top agency personnel into matters which should properly be resolved between the Corps and the permit applicant.

Thank you again for the opportunity to express my concerns with the Corps or Engineers wetlands enforcement in Alaska. If I may be of further assistance to the Committee please do not hesitate to contact me.

Sincerely,

Don Young

DON YOUNG
Congressman for all Alaska

DY/dlf

QUESTIONS BY REP. DON YOUNG
SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
HEARING SEPTEMBER 14, 1988
SECTION 404 PERMITTING

1. HOW DO YOU ALLOCATE RESOURCES TO PROCESSING PERMIT APPLICATIONS?

Every district is allocated resources commensurate with known and projected workload. Particular local and regional factors are also taken into consideration. Funding limitations in FY 87 and 88, however, restricted the Corps ability to allocate an appropriate level of resources to every office.

2. CORPS REGULATIONS PROVIDE A CRITERIA FOR DETERMINING WHETHER A PERMIT APPLICATION IS IN THE NATIONAL INTEREST. THIS REQUIRES THE CORPS TO CONSULT WITH OTHER FEDERAL AGENCIES SUCH AS THE E.P.A., THE FISH AND WILDLIFE SERVICE, AND THE NATIONAL MARINE FISHERIES SERVICE. THIS REQUIRED LIST SEEMS TO INCLUDE ALL OF THE RESOURCE AGENCIES BUT IT DOES NOT INCLUDE OTHER AGENCIES WHICH MIGHT ALSO HAVE A STAKE IN THE OUTCOME. FOR EXAMPLE DOES THE CORPS CONSULT WITH THE DEPT. OF ENERGY ON ISSUES WHICH HAVE AN IMPACT ON ENERGY PRODUCTION? IF NOT WHY NOT?

In its regulation, the Corps has identified a number of factors, including energy needs, that must be considered in its application review. Since each application is treated individually, all applicable factors affected by the proposed projects are considered. Besides the standard interagency coordination that occurs on an application, those Federal, State and local agencies with expertise relative to a particular factor are consulted.

3. WHAT IS THE BASIS FOR THE CORPS DETERMINATION THAT PERMAFROST IS WETLANDS FOR PURPOSES OF SECTION 404 PERMITTING?

The Corps does not recognize all permafrost as wetlands. Where permafrost creates restricted drainage of snowmelt the excess of water creates a wetlands situation and this falls under Corps jurisdiction. The Alaska district of the Corps does consider that all wet tundra is wetlands under Corps jurisdiction. Moist tundra, however, is handled on a case by case basis to determine its applicability under Section 404 of the Clean Water Act.

Mr. **Oberstar**. Our first witness this morning is Mr. Neal Curtin, Resources, Community and Economic Development Division of the U.S. General Accounting Office.

Would you please identify your associates, Mr. Curtin?

Mr. **Curtin**. To my right is Bob Robinson, Group Director, who is in charge of the entire body of work in resource protection including the wetlands assignment and on my left is Ed Niemi, who was the auditor in charge of this particular assignment and the principal author of the wetlands report.

Mr. **Oberstar**. Thank you.

[Witnesses sworn.]

I would like to reiterate my statement about the splendid piece of work that the GAO has done in compiling this documentation on wetlands. I dare say that this is the most comprehensive analysis and summary of the status of the wetlands program ever assembled, with the possible exception of the committee hearings conducted back in 1977 by the Subcommittee on Water Resources and the able work done by a previous Chairman of the Water Resources Subcommittee who is with us this morning, Mr. Roe.

This is a landmark piece of work. It is thorough, detailed, and professional in the usual GAO fashion, and we are very pleased to have it. You have made a great contribution to one of the most important missions that we have, which is protecting and preserving the Nation's wetlands, which have perhaps come into sharper focus this year than at any other time because of this summer's nationwide drought. People are worrying about the disappearance of wetlands. Nature may have some effect, but man through his own thoughtlessness, or in other cases by his own economic expansion, has done more to destroy wetlands than nature has been able to do in seasons of drought.

Mr. Curtin, welcome. You may proceed as you see fit.

TESTIMONY OF NEAL CURTIN, DEPUTY DIRECTOR, RESOURCES, COMMUNITY AND ECONOMIC DEVELOPMENT DIVISION, GENERAL ACCOUNTING OFFICE, ACCOMPANIED BY BOB ROBINSON, GROUP DIRECTOR, AND EDWARD A. NIEMI, EVALUATOR, GAO

Mr. **Curtin**. Thank you, Mr. Chairman, for those kind words. We certainly appreciate the opportunity to be here today to present the results of this study as we think it is an important issue and an important piece of work that we have been able to do at the committee's request. My understanding is that our report, which was done at the subcommittee's request, will be released today in conjunction with the hearing, and we did bring some copies with us.

Mr. Robinson and Mr. Niemi are with me today because they are intimately familiar with the details of all of our analyses and findings and will be able to answer any detailed questions that you might have. I understand that my prepared statement will be inserted into the record, so I thought I would summarize fairly briefly and then discuss in the question and answer period any details that you might wish to cover.

Mr. OBERSTAR. Your prepared statement will, without objection, be included in the record. Please proceed and summarize in any fashion you wish.

Mr. CURTIN. The study was focused on three key issues in which the committee was particularly interested. First, the overall impact of the Section 404 program in controlling wetlands losses. Second, the extent to which the Corps of Engineers (the key agency charged with implementing the program) considers the comments from the resource agencies during the permitting process. And finally, how the Corps and EPA, the other key player at the Federal level enforce program requirements. Besides the two agencies, the Corps and EPA, there are two other agencies involved, the Fish and Wildlife Service, part of the Department of the Interior, and the National Marine Fisheries Service, part of the National Oceanic and Atmospheric Administration in the Department of Commerce. They are important to the protection of wetlands and their main role is to comment on Section 404 permit applications for developments that could affect wetlands.

Our report covers three main findings and a chapter of the report goes into some degree of detail on each of these findings. I think I can present a few highlights fairly briefly and then get into your questions.

First, the Section 404 program does not control most wetlands losses that are occurring but its full impact is really not known. There is a consensus that wetlands are disappearing at a rate of 300,000 to 500,000 acres per year nationwide, and as you mentioned, in this year of record drought that number could be much higher. The full extent of losses this year can not be known yet. Total acreage of wetlands in the lower 48 States had been estimated at approximately 100 million acres and that number has fallen in the past 20 years. Most losses, estimated by OTA in 1984 to be as high as 80 percent of wetlands losses, occur because of conversion of wetland areas to agricultural uses, and as the Section 404 program is currently structured, the Corps does not have authority to regulate activities such as normal farming and draining in these areas.

The Corps and other agencies involved in the program agree that some wetlands are being protected by the program, but there is no data available to provide a comprehensive nationwide estimate on the extent of protection being provided by Section 404. In fact, one key area of disagreement that we discussed in our report deals with differing interpretations between the Corps and the resource agencies on how to define wetlands boundaries themselves and what should be covered by the program. The Corps, in general, has tended to define the lands covered more narrowly. The resource agencies, especially Fish and Wildlife Service, would like a much broader definition. One example cited in our report, one of the more extreme examples certainly, is where a Corps district determined that about 20 to 25 percent of a particular site involved in a development project was regulated wetlands. The Fish and Wildlife Service, for that same permit application, considered 80 percent of that land as regulated land.

The second finding is that the Corps is considering but often not implementing resource agency recommendations on permit applications. While the Corps generally does a good job of requesting comments on permit applications, and frequently accepts resource agency recommendations, there were many cases in which the Corps granted a permit over the agency's objections. In the five districts that we visited for our study we estimated that during 1986 the resource agencies commented on about 1,400 applications, recommending that 111 of them be denied. The Corps district issued permits anyway for about 37 percent of those 111. During that same time period the Corps accepted about 80 percent of the resource agencies' recommended modifications to permit applications. We found that while the agencies can elevate their concerns if the Corps district denies their recommendations, this rarely happens because the process that is in place now is a cumbersome, time-consuming effort. EPA, in fact, has veto authority over Corps permit decisions if it chooses to exercise that, but has used that authority only five times since passage of the Act.

A third area deals with enforcement activities, and what we found is that the Corps and EPA just do not place much emphasis on monitoring and enforcement activities under the Act. The Corps and EPA share responsibility for this activity of monitoring and enforcement, but neither agency devotes much attention or resources to surveillance and inspection. When violations do come to their attention through the public, State, or other agencies, the Corps rarely uses available civil or criminal remedies, preferring instead such administrative actions as granting an after-the-fact permit to allow what took place, or requiring land to be restored to its original condition. In the five districts that we reviewed only six civil actions and no criminal actions were pursued by the Corps in those five districts during Fiscal Year 1984 to Fiscal Year 1986. During that same period no permits were revoked in those districts. EPA has independent enforcement authority under the Act for unpermitted activities, those activities which did not obtain Corps permits, but that authority is also used sparingly as EPA feels that it does not have enough resources for that activity.

Our report makes several recommendations to the Corps aimed at improving program implementation without requiring major new expense. We also raise a matter for consideration for the Congress: take a look at the different interpretations being made of some of the provisions of the Act and, if necessary, provide more specific or additional guidance to the Corps and resource agencies to bring them on to the same page.

Mr. Chairman, I think that adequately summarizes the report, and I would be glad to take any questions that you may have.

Mr. **Oberstar**. Thank you very much, Mr. Curtin, for those remarks delivered in the usual GAO analytical, thorough, objective manner, devoid of passion and of feeling and presented with the hope that the full weight of ideas and information falls squarely and thunderously as it should. Believe me, it does. I have read the report and I have read your statement and perhaps it is time for us to provide some thunder. Overall, I get the impression from reading your report that the Corps and the resource agencies have not taken this program seriously. They look on it more as a nuisance. They look on it as something to be done in your spare time when you have nothing else to do, as though that this law is not a law at all but is more of a yield sign, sort of a flashing yellow on the roadway. The fact that the Corps' response to your questions repeatedly in the several districts about enforcement is, "Well, we don't have the staff; we don't have the budget," does not hold water with me because in no budget submitted to the Congress have I seen any requests by the Corps of Engineers—I serve on the Budget Committee—for increased personnel to undertake enforcement activities and to carry out the requirements of Section 404. The Corps frankly—and I am a great admirer and enthusiast of the Corps of Engineers; I think they are one of the great agencies of the Federal Government—has not wanted this program since the day that it was enacted in the 1972 Act. They have fought it, dragged their feet, and made it virtually impossible to administer. The first set of regulations that were published so enraged everyone from farmers to loggers to land developers and airport operators, that this committee was required to hold a very extensive long series of hearings on that program and to attempt in some fashion—in fact, here are the hearings of 1975, several hundred pages of documentation on why the program is not working.

I know that you do not like to deal in speculation and the GAO deals in fact and what it can demonstrate and prove on the basis of reliable and thorough analysis, but out of all of this work you have sifted some sense of direction, some feeling, and some attitudes, and I would like you to deal with that for a moment, please. And if I am dead wrong and you think that there really is this sense of overwhelming dedication on the part of the Corps and the resource agencies, I would like to hear you say that.

Mr. CURTIN. No, I don't think you will hear me say that, Mr. Chairman, but I can give a couple of comments on your statement. I think you hit the issue right on the head. It is our view that the Corps sees its role as issuing permits. They are a permitting organization and they are basically there to help get developments going where they need to be done. We did not see in our review the kinds of follow-up that you would expect or the kind of wetlands protection from the Corps' side that you would expect. I think you are right, Mr. Chairman, the history all the way through sort of indicates that.

On the resource agency side, the story is perhaps a little different and we did see certainly much more interest from them in wetlands protection. From all of the agencies though, we get the same story that GAO gets so many times. In my division we will issue about 200 reports this year and probably half of those will have some sort of statement in them to the effect that the agencies, because of resource constraints, have placed low emphasis on a particular program. Our response in GAO to that kind of situation has not been to say, "Well, let's go ask for more money or take more money from something else in order to put more emphasis on that." A good many of these programs do compete with high priority programs. Our response has been, "Let's get the most out of the program with the resources that we have," and I think that the recommendations in our report are really aimed at that. On things like this enforcement issue: both EPA and the Corps of Engineers are saying that they do not have the resources to monitor and inspect these places. Between the two of them, if they were working together in a little more coordinated fashion, we think they could cover a lot more ground tied in with another of our recommendations, which is better data, nationwide data, on just what the situation is and what is happening to projects covered by Section 404. I think that they can target resources much better and work together much better to get more out of the limited resources that are there. I am not sure that what is needed is more personnel and more resources, but rather a different attitude and a willingness to work together perhaps to reach some common ground on the program itself.

Mr. **Oberstar**. I think that the three principal recommendations made in the conclusion of your prepared testimony are very balanced and reasonable, and they are steps that can be taken, as you say, without major expense and without adding substantial numbers of additional personnel, but if there isn't the will within the agency to do the job, no matter how much money or how many personnel you put in there, the mission direction is going to be lacking and the sense of enthusiasm for this program will not be present.

I have a couple of questions and then I will go on to the other members. I will set an example, limiting myself to under 10 minutes so that all of the members who are anxious to get into this discussion will be able to do so. How did you choose the five districts for the representative sampling of the study?

Mr. **Curtin**. We wanted to get as broad a geographic coverage as we could, knowing that we were not going to be able to provide anything projectable for anything nationwide. We do have excellent geographic coverage, including some coastal areas, midwest districts, and far-west districts. We covered Baltimore Maryland; Jacksonville, Florida; Vicksburg, Mississippi, Omaha, Nebraska; and Portland, Oregon, so we had areas that were fairly representative of the kinds of wetlands that we would deal with in the different geographic areas of the country.

Mr. **Robinson**. If I might add a comment: the Corps was given the opportunity, in order to provide balance to our scope, to select a district that they thought would represent the best that they could do.

Mr. **Oberstar**. Which one was that?

Mr. **Robinson**. That was Portland, Oregon.

Mr. **Oberstar**. Now, having studied the Corps at some length during this project, do you have the sense that their very decentralized structure, which works well for other missions within the Corps of Engineers, may affect the administration of a regulatory program like Section 404, and that in fact, it results in varying decisions that may differ from one district to another?

Mr. **Curtin**. I think that there are some mixed results there. There are some benefits to decentralization in that you have people who are close to the land and know the issues in the local environment, and the Corps has numerous district throughout the country with people who are very knowledgeable about local conditions. That should help, certainly, in making the right kinds of decisions. What you need though, when you have that kind of situation, is some stronger central agency oversight of those decisions because you do run the risk of inconsistency. I think we see that in several areas. Enforcement, for example, is different. Acceptance of resource agency recommendations is different from district to district.

Mr. **Oberstar**. But do you think that Headquarters Corps does that kind of job of oversight of the district offices in an attempt to standardize the decision making process?

Mr. **Curtin**. One of our recommendations is aimed at better central oversight of the enforcement activities and more direction of what is expected and needed for inspection and enforcement activities. I think that is clearly an area that the Corps can do better in.

Mr. **Oberstar**. That certainly makes sense, and I would like to see a greater degree of enthusiasm from Central Headquarters in the Corps for this program and for running it effectively and decisively and with perhaps some greater degree of unity and uniformity in thought process.

Mr. **Curtin**. That would be in accordance with the type of findings that we had, certainly.

Mr. **Oberstar**. Thank you. In Chapter Two, you recommend the development of "base-line information on the extent to which the granting of Section 404 permits is protecting or resulting in the filling of wetlands." Could you elaborate on that statement?

Mr. **Curtin**. One of the problems that we found when we start to look at the impact and effectiveness of the Section 404 program and what was really accomplished through this program, is that there is just not much data available. The agencies really do not know a great deal about specific historic conditions versus current conditions and the direction things are going. This is because some basic kinds of elementary data on the program are not collected on a national level. We found that some of the Corps districts have the kinds of information that we were looking for, however. Individual districts have found use for this kind of data, but it is not there nationwide, which makes it hard then to target resources and to make central decisions on the program. What we are talking about is really pretty basic data: things like the acreage that is regulated under the program, the number of applications which are denied or the modifications that have to be made to protect wetlands acreage. This is just basic data, and we were not looking for an elaborate system. The Corps was concerned that trying to gather this kind of base-line data and set up a data collection system would be too expensive and too cumbersome, but we think that it can be done without any great expense, especially because some of the districts have already shown that they can do it.

Mr. **Oberstar**. It seems to me that is a task that should not involve an enormous amount of time and effort, and it is one that is vitally important to the essence of the mission. I will come back later to the question you raised in your report and your prepared testimony, which concerns criteria to define what is a wetland. In my part of the country, in Northern Minnesota, they used to call us "Hicks from the sticks," or "Swamp jumpers." Now that kind of territory is called wetlands, a wildlife and waterfowl protection area. In the days when I was growing up we did not think much of wetlands in the terms that we now understand them. I hope that the intervening time has helped us to appreciate how significant and vitally important they are in preventing floods and preserving our waterfowl population and groundwater.

The Chair has reached the 10 minute mark. I recognize the gentleman from Pennsylvania.

Mr. CLINGER. Thank you very much, Mr. Chairman.

Mr. Curtin, thank you for an outstanding report, which I believe is going to be very helpful to us.

I want to explore for a minute the tension that you have identified between the Corps and some of the resource agencies. I think that in the report you identified some 41 instances out of about 1,400 applications in which the Corps overrode the negative comments of these agencies and issued the permit despite those objections. Did the resource agencies request the elevation of those? Let me first ask if there is an appeal process or some sort of process by which the resource agency can get that decision reviewed?

Mr. CURTIN. Yes sir, there is. I might just make a comment and then Mr. Robinson can go into more detail. One of the key findings and maybe the area where the resource agencies are falling down a little bit is that they really have not done much to elevate their concerns. The feeling is, I think, that the process involved is too time-consuming and too cumbersome and rarely results in any changes. It is just not frequently used. That is an area in which there are some discussions under way between the Corps and some of the resource agencies, and we may see some streamlining of that process in the future. It is an area that certainly needs some attention.

Mr. ROBINSON. On the ground among regional personnel, there is a widespread feeling in many quarters that it is just not worth the fight. The feeling seems to be, "We rarely win and we have so few resources that to spend them on a futile fight is just not very prudent on our part." So they just concede from the start.

Mr. CLINGER. Of the 41 cases where there was a decision by the Corps to go ahead with the permit regardless of the denial recommendation by the resource agency, to your knowledge were any of those appealed?

Mr. NIEMI. As far as the number, it is 37 percent not 41 percent that we are talking about. At any rate, of those there were initial attempts for appeal or elevation in only a couple of instances, very few in number. I do not have the precise number, but I think it is safe to say that it is under five. But that elevation process ended very quickly, either internally within the resource agency or as a result of discussions with the Corps.

Mr. CLINGER. So for all practical purposes, none of these were elevated though the full process or went the full route?

Mr. NIEMI. That's correct.

Mr. CLINGER. Despite this lack of elevation requests, would it be your opinion that the possibility of elevation might be used by the resource agencies as a club or a carrot which would prompt further concessions or conditions being applied to the issuance of permits?

Mr. CURTIN. I think that there is probably some of that going on. There are some informal contacts between the staff of the various agencies and there are some concessions made in the permit process that defuse some of the disagreement. I am not sure that we have any good numbers on how much of that goes on—it tends to be relationships at the district level that have developed between particular people in the agencies. It is not a formal process.

Mr. **Clinger**. Does GAO think that something should really be done to permit or to encourage greater use of the elevation mechanism, and to that end, would you recommend a streamlining or a cleaning up of the cumbersome process of elevation or appeal?

Mr. **Curtin**. Absolutely, and as I mentioned, there is some of that going on already and we were glad to see that. I do not know if it was as a result of our being there and getting into that issue, but there are drafts of a memorandum of agreement under discussion already between the Corps and some of the agencies.

Mr. **Clinger**. Apparently we have seen an actual decline in the number of requests over the last few years from what it has been in the past. Would that suggest that the process is becoming more cumbersome or difficult, or would it suggest that perhaps the Corps is doing a somewhat better job?

Mr. **Curtin**. I am not sure but I suspect that it reflects more of what Mr. Robinson was talking about, that there is some frustration because not much has been accomplished through the elevation process, and the resource agencies are unwilling to devote the resources to it any more.

Mr. **Clinger**. I am advised that in staff preparations for this hearing a number of interviews were conducted with agency personnel and interested parties. They seemed to suggest that the Section 404 permit program is working better perhaps at the field level than the policy differences between the Corps and the respective resource agencies at the Washington level might suggest. My question is, in your study was there any perception of that nature on the part of GAO, that in fact, decisions might have been made at the field level which were not even recognized in Washington?

Mr. **Curtin**. Maybe I will let these two answer that since they were out in the field.

Mr. **Robinson**. I think that as a very general statement, it is probably true that the very presence of the Act and the very presence of the process probably serves to save a certain number of wetlands.

Mr. **Niemi**. I might just add that we need to keep in mind that the vast majority of permit applications go through the process without resource agency comments, so the number of exception cases or problem cases for the resource agencies is rather small taken as a percentage.

Mr. **Clinger**. Are you saying that the number of applications that come through with any comments at all is very minimal?

Mr. **Curtin**. There is no controversy involved between the Corps and the resource agencies. That may be a function of some contact at the local level during the preapplication processes and the like.

Mr. **Clinger**. Your report references an EPA study which was conducted in Region Ten that identified two trends. First is a downward trend in net losses and second is an increase in mitigation acreage. Can you say whether or not those trends were nationwide in scope or were they limited just to Region Ten?

Mr. **Niemi**. We do not have any other data to substantiate that.

Mr. **Clinger**. There is no other study then except the one that was done in Region Ten?

Mr. **Niemi**. That study, at the time we were doing the field work, was in a draft stage.

Mr. CLINGER. You have not seen the final version of that?

Mr. NIEMI. No.

Mr. CLINGER. Thank you very much, Mr. Chairman.

Mr. OBERSTAR. The Chair recognizes the gentleman from New Jersey, the former Chairman of the Water Resources Subcommittee, Mr. Roe, whose presence and participation in every step of writing and revising the Clean Water Act of 1972 and its predecessor and subsequent provision——

Mr. ROE. I'll take the nomination. [Laughter.]

Mr. OBERSTAR. Mr. Roe?

Mr. ROE. I thank the chairman for recognizing me.

I am here specifically this morning to participate in this hearing because I have deep concern about the way the program is going. The chairman mentioned earlier about thunder and lightning—God knows, when we have talked about Section 404 in the past, it has always been thunder and lightning.

[Remarks made in Italian.]

Why did we not select New York? That is the worst run district in the country and probably the most complex one in the country that we will have to deal with. I find my blood pressure rising just thinking about it and the problems we have been faced with.

I think to be fair, that you have made a couple of very important observations that are really at the core of the issue. For example, first of all, what is the definition of wetlands? Is there a definition, and whose definition is it? Has Congress written into law what they mean by wetlands? I think that the answer is that they have not. That is number one.

Number two, we then go to the agencies and say, "Here, work this great miracle that you are going to work. You select the definition of what the wetlands are going to be." You mentioned in your study, and I think you are right, the point that EPA designates one view and the Corps another. That is a total nightmare to the citizen.

I have three cases in my district which I will share with you. We spent $38 million on an urban renewal program in Wayne, New Jersey. Another $18 million was spent by the State of New Jersey in putting in a cloverleaf of Route 23 to further open up this area that is in the so-called urban renewal program. Now they come in—they being the EPA and the Corps of Engineers out of New York—they designate four of these quadrants to be two-thirds in a wetlands area. If there is no definition for wetlands that is in the law, who defined the wetland issue in the first place? Therefore, they make some kind of a quid pro quo agreement between themselves and Fish and Wildlife and the whole bit.

Now, I am a very strong supporter of the wetlands program. In fact, I helped write most of this law. But in coming back and saying that because somebody moved a little something over here 30 years ago and cattails are growing, to say that is a natural wetland and the whole world is going to fall apart is total nonsense in the way that it is being interpreted in that particular district.

In that very same district, the State has taken over a piece of land to build a garage for trucking. In order to get to that garage that they are going to put the buses in for the northern part of the transportation program of New Jersey, they have to go through the wetlands area. The land where they are going to build that garage is identical to the land next door where they will not give the people or the town a building permit to go ahead with our program as far as the urban renewal is concerned. To me that is ludicrous—that's number one.

Number two, there is another project in that same community. The owner of that project has now spent about 1.8 million to mitigate with a battery of lawyers and environmentalist and the whole bit to go ahead and work this thing out. And what did they declare the wetlands to be? The people up above built a culvert under the turnpike, and the culvert at that time in the early history of the town let the water run on to somebody else's property. What the guy wants to do is to carry the culvert further out, but he will do more than that. He will provide an acre-and-a-half or two acres of advanced wetlands, any type of design that they want. That district has gone to the extent of forcing them to spend between $800,000 and $900,000 right now. They also have delayed that program. They literally went to the town to have the town rezone the land so that he could not build on that part of it. That's the second one.

Now let's take the third one. It is sheer nonsense for us to be in a position where in every two or three-acre piece of property that somebody wants to build on, part of it is going to be declared wetlands, when nobody knows what the definition of wetlands is and nobody can identify what is the wetlands, as far as Fish and Game is concerned, and as far as the EPA and Corps of Engineers are concerned. Now what do we achieve by having a little blotch of land here and a little blotch of land there with maybe something over here, on thousands of applications in the Northeast that are going no place and are literally destroying the whole wetlands thesis? We come back and ask what are some of the changes that should be made? Now I want to get to your recommendation.

You make a lot of sense. I think that first of all, the Congress should define what they mean by wetlands as uniform between the agencies. That only makes sense. They should be in a position of setting up an inventory. They tell me that in the New York District, they have taken people from all different types of sections in the Corps of Engineers, and that there is no way that they have the resources to be able to provide for the handling of thousands of permits. It is not just a question of writing a permit. You have got to send people out into the field, you have 10,000 things that you have to do between the different agencies involved. In fairness, we have not provided the resources as far as Congress is concerned to put the muscle behind this program that should have been done in the first place.

Now let me ask you a question. In your review you looked at five or six districts. The fundamental question is, is the process of the Corps the same in each one of the districts that you reviewed? Is there a uniform process established by the Corps, or does each district run in its own way?

Mr. Curtin. To some extent, I think that some of the anecdotes that you related there indicate that the process may be a little different even within the same district for different cases, and that is part of the problem.

Mr. Roe. Did you have people work in cross districts or just one person, one district?

Mr. Robinson. We had separate teams in five different locations with Mr. Niemi coordinating them.

Mr. Niemi. I will add that there are differences in terms of the agencies as to the types of wetlands and the ease with which you can define the boundaries where the wetland stops. For example, I think that with coastal wetlands, the technology is such that the definition of boundaries is easy to determine. However, when you get into situations where you have the inland wetlands, there are problems in terms of the delineation and there are disagreements. Areas like Vicksburg, Mississippi with its hardwood forests is an area where we found the greatest problem in definitional boundary determinations.

Mr. Roe. Would you say as part of your recommendation that there ought to be at least some kind of a uniform program established throughout the country for identification of wetlands? That does not mean that they will be all the same in each district. For example, hardwoods in South Carolina may not be the same as pine forests would be in New Jersey, but nevertheless, these are areas that should be designated in different regions of the country.

Mr. Niemi. I think that there would be general agreement that this is something we should have, and I should mention that both EPA and the Corps were field-testing definitional methodologies at the time of our field work.

Mr. Roe. Then you do think that we should be doing this as one of the basic criteria, just so everybody is playing with the same marbles?

Mr. Curtin. That seems to me to be a really basic starting point if we are going to have a serious program. We need to know what we are protecting.

Mr. Roe. From the point of view that EPA has one set of criteria and the Corps another, is where a great deal of the conflict arises. Then Fish and Wildlife comes back saying that they did not think it was two-and-a-half acres, but that it is four acres from their point of view. I think that is a key area.

What about the idea of charging a fee? We say that we do not have the resources, so what about the idea of a an applicant fee, like a building permit or whatever? Why don't we charge a permit fee so that each person that comes before the Corps as the lead agency will have to pay so much per acre or whatever the case may be to help defray the costs? Those costs would be reserved for running a permit program. How does that sound?

Mr. Curtin. That is not something that we did any particular study of during the assignment, but it is an issue to be examined.

Mr. Roe. Do you think that it should be looked into?

Mr. Niemi. There is a fee system, although it is nominal at the present time. It might be just a question of either increasing the fee or adjusting it in some way.

Mr. Roe. When the gentleman from Pennsylvania was making his presentation, he made the comment that one of the biggest problems we are faced with is the time element involved. In other words, the applicant comes in and it takes years to get a decision. The applicant would be better off if we designated nationally what we consider the wetlands to be. You would get your map for your region of the country and these areas would be designated. Therefore, if I come to present my application and I now know what is designated as wetlands, we are either going to look for mitigation or not and in three weeks time, at least we have a determination of some kind. As it is now, if you have one interpretation from the Corps and another interpretation from EPA, you have an entirely different set of circumstances. Who is going to decide that issue?

How about another idea? The assumption is that in a State such as New Jersey, which is the most urban State in the Nation, that in every single house that is to be built—there is a third of an acre here and a little there—it takes forever. So what about the idea of setting up regional areas within a State where you could have compensating, offsetting wetlands? It would make more sense. In other words, let's suppose for the sake of discussion that on these 50 different projects you have a third of an acre, a tenth of an acre, a sliver here and there, and so on. And suppose we said that for every acre that we finally decide should be mitigated, that the mitigation ought to take place as designated by the States in regional areas. For example, on the Pasaic River Basin we have a huge flood plain area that people are building on, parts of which should be set aside for wetlands. If we were to concentrate those resources in that area it would make sense in 25 different directions as far as the needs of the State are concerned for freshwater wetlands. Does that make sense to you?

Mr. CURTIN. It does make a lot of sense, and some of that is done in certain cases now. There are trade-offs made on a particular permit application where some wetland area could be used for the development but other land will have to be given up and developed as wetlands. Your idea of a regional look at it makes a lot of sense, and the States would have to be key players in doing that, I think. I think you get into an area that we do not touch on much in the report but that is a key issue in all of this. That is, the effect that all of this is having on the citizens, the people who are looking to do some of this development activity. All of these issues and the mixed signals that they get from the different agencies have got to cause a lot of confusion that could be costing people a lot of money.

Mr. ROE. What you are saying is two-fold. Let me join with the chairman and those who have preceded me in complimenting you enormously for getting this thing going for us, because I think that this is one of the most important issues that we are facing as far as natural resources are concerned. I hope that we can go further in saying that you are identifying what the problems are, but in legitimacy there are certain things that Congress is going to have to do in revising the legislation to be able to set certain basic ground rules. Otherwise, all we have said to the people out there and the agencies is, "This is what our concern for the wetlands is about, but you guys go out and work it out." That just is not working. That is the point that the chairman was making and I think he is totally right. Don't you feel that Congress is going to have to do more than just say, "Okay, this is a bad thing; clean up your act." Don't you think that we are going to have to have legislation on it? I think that we are.

Mr. **Curtin**. Yes. We have highlighted three issues for consideration for the Congress that are areas of some disagreement and misunderstanding that we think that the Congress could provide some help on, and one of those, of course, is the defining of the wetlands. The other would be the issue of practicable alternatives. The Act calls for the consideration by the Corps of practicable alternatives to development in these wetland areas and there is a lot of disagreement among the agencies as to just what that means and there is probably some help that Congress could provide on that.

Another thing is cumulative impacts. Many small developments chipping away little by little at an area—each individual one may not have much of an effect, but over a number of years you can wind up with some fairly severe degradation of a wetland area. This issue of cumulative impacts is really not covered very well.

Mr. **Roe**. Where the cumulative area is involved is in our Meadowland situation in New Jersey. That is a very complex issue to say the least because years ago the State set up a regional commission to develop that whole area. It would seem to me that somebody ought to be able to sit down and say, "Okay, we are not going to let you develop the 20,000 acres—don't come year after year with a part here and a part there." We should agree on what the wetlands issue is going to be within those 20,000 acres and agree that part has to remain sacrosanct and not be nipped away point by point. Again, there is no mechanism between the Corps and EPA to establish that type of situation. Neither one has that type of authority unless we write something into the law on that.

Mr. **Robinson**. I think it is fair to say that the cumulative impact issue is——

Mr. **Roe**. Ignored completely.

Mr. **Robinson**. Yes, because it is so difficult to deal with without some broad goal. You need some idea of what are you trying to accomplish. In examining an individual permit it would be helpful to know how much is nipping and how that individual project affects some broad goal that has been established. Without the broad goal, there is very little way to interpret cumulative impact and to implement it.

Mr. **Roe**. Thank you very much, Mr. Chairman.

Mr. **Oberstar**. Thank the gentleman for illuminating some very important points in this hearing as he always does in his very direct fashion.

The Chair recognizes the gentlewoman from Connecticut, Mrs. Johnson.

Mrs. **Johnson**. Thank you very much, Mr. Chairman.

This is a hearing that I am particularly pleased to be a part of because I share many of those same concerns expressed by my colleague from New Jersey. I have also been out there on the front line on many of these issues, so I am pleased to have this opportunity to participate in this hearing.

Mr. Curtin, in your study of this matter, did you do any analysis of the nature of the environmental objections that were raised by the other agencies and on the nature of those that were raised and acted upon by the Corps as opposed to those that were raised and not acted upon?

Mr. CURTIN. I will let Mr. Niemi, who is more familiar with the details, talk about that.

Mr. NIEMI. Generally, the most serious objections of the resource agencies involved inadequate mitigation issues and problems——

Mrs. JOHNSON. Could you enlarge on that? What did they mean by inadequate mitigation?

Mr. NIEMI. That the mitigation was not compensating for the loss of the wetlands that was proposed in the public notice.

Mrs. JOHNSON. In acreage, or quality?

Mr. NIEMI. It would be a combination of the two, but probably there would be more emphasis on the quality.

Mrs. JOHNSON. Can you give us any more detail?

Mr. NIEMI. We did not do too much work in the area of mitigation because of the technicality involved in the whole issue.

Mrs. JOHNSON. Were there any other areas in which you would say that the objections were frequent?

Mr. NIEMI. The issue of practicable alternatives was probably the other most significant issue, meaning the lack of consideration of alternatives to the project as proposed.

Mrs. JOHNSON. Those being the two categories—and you say you did not look at mitigation too carefully because of its technical complexity—but in the practicable alternatives, did you do any analysis of the objections that were raised in that area? The reason I am asking this is that I am a legislator and I am lobbied by different interests in our society. I am proud of the fact that I do not have a 100 percent rating with any group, because I have found that as someone responsible for the public interests, I have never met a group that was 100 percent right when their interests were compared with everyone else's interests. So if I were the Army Corps of Engineers, frankly, I would be very proud of the fact that 80 percent of the modifications proposed were accepted. To me that says that you are listening. If 80 percent of the objections are heard and acted on, that is a very good record. If 37 percent of the denials that were recommended were actually accepted, that is over one-third, and that is not a bad record for an agency whose goal it is and whose explicit mandate it is to reconcile opposing and conflicting interests. This is an agency, from your report, that is listening.

Now, from my experience, which has been unfortunately all too broad and too frequent in the last year in many different contexts, when you say that a lot of the objections are in the area of mitigation but you did not get into it, one of the problems is that nobody is getting into it. You have State agencies out there saying, "You want us to mitigate—well, will you accept this?" And nobody on the Federal level will answer yes or no. We do not know a lot about mitigation and I do not think that we ought to in any way suggest that the objections were significant in that area and not recognize, unless you can tell me more about the mitigation complaints and indicate through analysis that in fact those objections were worthy and not sustained. If 80 percent were accepted—and your experience with mitigation is what my experience with mitigation is, not just with the Corps, but with EPA as well—then that poor private sector out there should not be called upon to invent what the government does not know about but is using as a word-screen to frustrate economic development and road building activity which has some merit.

Mr. CURTIN. I understand your concern and I guess my reaction to that is that you are right about the numbers. In 80 percent of the cases, the Corps accepted the kinds of modifications that the agencies were calling for and in about two-thirds of the cases, they accepted the recommendation to reject the permit. It is a question of whether you want to look at the glass as half empty or half full. The cases where there are disagreement tend to be fairly confrontational, controversial kinds of issues, and they do attract more attention.

Mrs. JOHNSON. I guess that what I am concerned about, Mr. Curtin, is that your report focuses on numbers. The numbers are not bad, but what is the analysis behind the third of the permits that were recommended for denial by the resource agencies and not for denial by the Army Corps? What is the analysis of the 20 percent? Does your analysis of the nature of those objections indicate to us that we ought to change the law? I don't want to push that because I don't think you have the answer. On this practicable alternatives issue, I just had a situation in which we were lambasted in Connecticut for not considering a certain course of action as a practicable alternative. When the S-curve proposed in a highway route that they wanted us to consider was too severe to be acceptable under highway engineering standards and when we pointed that out to them, their comment was, "We are not highway engineers." The Army Corps is beholden to consider the highway engineers' opinion as well as environmentalist opinions. You see, that should not be seen as a legitimate practicable alternative objection that was not sustained. It might have been a practicable alternative to suggest they did not look at this other alternative that was practicable, but the question is practicable by whose standards, environmental wetlands standards or highway safety standards? My point is that what we need in order to legislate is a look at the 37 percent and a look at the 20 percent.

Now, on the definitions of wetlands issue, there are legitimate differences. I have been on-site in industrial situations that affect jobs in my district as well as many other situations and there are frankly very legitimate differences of opinion that I do not see how we can define from the Federal level. I think that we can give better guidance in wetlands and I think that we ought to at least look at and pursue that, but I certainly want to have on the record that I would be concerned about Washington mandating in law a precise definition because on-site there are very legitimate differences of opinion as to where a wetland does in fact end.

Mr. ROE. Will the gentlewoman yield?

Mrs. JOHNSON. Yes.

Mr. ROE. I think that we were coming together in our own thought process here because when you speak specifically of the S-curve issue, you just do not take a highway and move it 2,500 feet. You just can not do that because it can not be engineered that way when it was designed in advance. If there were some way as we look at this issue, when we speak specifically to mitigation, it would seem to me that if something is a legitimate issue and we have a conflict there, such as the S-curve in the highway, then we ought to be able to mitigate that damage that is done on a regional basis or something of that nature.

In the building of I-287 through Northern New Jersey they went ahead and got into that program and started to build it. Then as the situation unfolded where the wetlands were involved, they came back to the State and they, the Feds, said to the State, "Hey guys, you didn't clear it with us in the first place." Now we have to mitigate something like 1,400 acres. In mitigating the 1,400 acres, the State came back saying that they would apply in the towns that we are going through a proportional share of that mitigation arbitrarily to each town. There just should have been some kind of a regional approach rather than make a modification here and there. We ought to be in a position that will make sense to the whole, by mitigating on a regional basis.

Mrs. JOHNSON. I agree with you and could give my own examples of the same type of thing.

I just want to ask this: is farm land excluded under the Section 404 permit?

Mr. CURTIN. That is not as simple as I originally thought that it was.

Mr. NIEMI. Normal farming is an exemption category in the law, but there are extenuating circumstances regarding the "normal farming," the 404(f)(2) section, I believe it is.

Mrs. JOHNSON. I will not pursue this, but I think that certainly if we are going to have a more rational, comprehensive policy, then we can not exclude one industry and not exclude other industries who may have less impact on the wetlands but may have just as much impact of the economy. In addition to developing the mitigation policy issue, we really do need to look at the mandate of the Corps and respect it as different from the mandates of other agencies so that we can have some final authority in an agency that does have the broad responsibility to balance the interests that the Corps does have.

I thank you for starting us off in this project. I would be interested in any information that you have that could give us a better insight into the objections and into what the job is that needs to be done there to look at those exceptions. Many of them are not valid. Let me give just one more example here. We are dealing with a recommendation from a notable agency that says we should choose this route instead of the other when the second route they want us to choose is not only going to take public golf course land, but is also going to substitute for those holes taken from the golf course certain new holes to be developed on alternate wetlands. You have the end effect of taking some wetlands and leaving others. It is absolutely bizarre, so I am not willing at all to say that the 20 percent of the objections that were not accepted had any merit whatsoever. A lot of the objections that I see have no merit.

Mr. CURTIN. I think our concern would be that the objections of the resource agencies need to be fully aired, and it is not clear that in this system where so few are elevated and so few are debated at higher levels——

Mrs. JOHNSON. I would ask you to defend that in a little greater depth than you have just defended it. If two-thirds of the permit denials that they were going to make, they do not make because they have listened, and if 80 percent of the objections are addressed, then there must have been an airing process that is frankly serving very well. If you do not think that it is serving well, I think that you have to do more than just say that you do not think so. I have not read your longer report, but I will. I have read your testimony and I think you need to back up that statement.

Mr. **CURTIN**. Again, the key is that the decisions are being made at the district level by the Corps and not being elevated through this elevation process, so there is less assurance that the judgments being made by the Corps are the right ones.

Mrs. **JOHNSON**. In your investigation I would have hoped that you would come up with specific information that might indicate that the one-third or 20 percent were serious enough that they needed airing. The fact that two-thirds or 80 percent are being favorably acted on indicates to me that the process is serving very well.

Mr. **CURTIN**. Perhaps it would be helpful if we could provide some more details for the record on the nature of those 37 percent and the nature of the 20 percent. I think that providing some more details would demonstrate that these are not frivolous——

Mrs. **JOHNSON**. Would you also give us the percentage of the ones that are significant and how you came to that conclusion? You must have some more details.

Mr. **ROBINSON**. We can provide more details.

[The following was received from Mr. Robinson:]

Of the 37 percent denial recommendations made by resource agencies that were rejected by the Corps, 78 percent involved at least one of the following reasons: the project proposed did not comply with the 404(b)(1) Guidelines issued by EPA, practicable alternatives were available that would obviate the need to destroy wetlands, the projects would have adverse cumulative impacts over time, or the wetlands proposed for filling were too valuable to lose under any circumstances.

The remaining 22 percent of the rejected denial recommendations include the belief, on the part of the resource agencies, that the projects are proposed would have (1) adverse impacts to fish and wildlife habitat, (2) inadequate mitigation plans, and (3) adverse impacts to water quality.

Of the 20 percent modification recommendations made by the resource agencies that were not acted by the Corps; 16 percent involved requests to provide for or increase mitigation or compensate for the loss of wetlands, 14 percent involved consideration of alternatives to the projects as proposed, 13 percent involved design changes to bulkheads or revetments and changes in the location or materials to be used as riprap, and 10 percent involved dredging limits and the location for deposition of fill material. The remaining 47 percent of the modification recommendations fell into many miscellaneous categories such as the need to consider alternative vegetation, the need for construction monitoring plans, and the timing of construction work.

Mr. **OBERSTAR**. The gentlewoman's time has expired.

In respect to that question that the gentlewoman has raised, page 52 of the GAO report deals with that aspect of the GAO inquiry. In particular, I would call the committee's attention to the second paragraph on that page, which I think goes to the heart of this question of the percentage of permits that were denial recommendations in which the Corps nonetheless issued permits. "We estimate that the Corps districts issued permits over the denial recommendations in 37 percent of our sample cases. The Corps gave a variety of reasons for not adopting the resource agency recommendations, including their belief that no practicable alternatives were available to applicants and following Corps policies that may contrast with resource agency policies." That I think is the heart of this issue. The Corps is substituting its own policies for those of U.S Fish and Wildlife Service, EPA, and National Marine and Fisheries Service, and there is more information that GAO has developed on this point that can and should be submitted for the record.

Mrs. JOHNSON. If the gentleman will yield on that specific point?

Mr. OBERSTAR. Yes, I yield.

Mrs. JOHNSON. That was exactly the situation that we had in my district. The difference between the Corps' policies and the resource agency's policies specifically was that the Corps had the broader mandate of reconciling the conflicting environmental, economic, transportation interests, whereas the resource agency only had the narrow responsibility of specifically a wetland interest. Often the resource agency will say that you have a practicable alternative, when anyone in their right mind can see that the alternative that the resource agency proposes is not practicable. I think there is often an issue here of the resource agencies being too narrow in their interests and of our not recognizing the legitimacy of the broader mandate that the Corps is responsible for, which is reconciling interests. If something is eight times the cost and when there are three acres of wetlands involved, frankly, it may not be a practicable alternative, and that is what the Corps has to deal with when the resource agency does not. Until we know that the one-third that were not granted or the 20 percent were on some sounder grounds than a lot of the things that I have been dealing with, I would not want to change the law. It is that detail that I want to get at, and I appreciate the chairman's interest.

Mr. OBERSTAR. Beyond that is the point that Mr. Curtin was making earlier. Even though the agency recommendations and concerns are expressed to the Corps, if the Corps overrules them, there is no process for debate. Or often that debate among agencies and the Corps is foregone because Fish and Wildlife Service does not have the staff, the personnel, and can not proceed with it, so they throw up their hands and say, "It isn't worth doing." So we really do not have a very thorough record on which to make a determination as to whether the Corps really was acting in that broadest overall public interest or whether they were just looking at it and saying, "Well, this isn't a navigable water, so it isn't a wetland. Therefore, we are not going to fuss with it." That's one of the problems that still exists and we will pursue that later. The Corps continues to look upon wetlands in their original configuration in 1973, 1974, and 1975 when this committee held its first hearings. The Corps was looking on wetlands as an extension of their jurisdiction over navigable waters, and to some extent they have not got over that viewpoint.

The gentleman from Georgia, Mr. Rowland.

Mr. ROWLAND. Thank you, Mr. Chairman.

It would seem that we have pretty well established the fact that there is no definition of wetlands that exists between the Corps and the resource agencies. Did you find any evidence that there might be a difference of the language or of interpretation in Section 404 between the Corps and the resource agencies?

Mr. **Curtin**. I am not sure that it is so much an interpretation of the language as it is the way that the agencies have set out to implement it.

Mr. **Robinson**. Certainly there is somewhat of a divergence in the whole issue of practicable alternatives as has been mentioned. At least in one district, the Corps people were telling us that the only alternative that can be considered is that laid out by the applicant because that person is the only one that can possible know what the original purpose of it is, whereas the resource agency would say that there are many other broader options that could be explored. It is a way of coming at the language more than the language itself.

Mr. **Curtin**. Part of it is that Section 404 and the Clean Water Act in general was not necessarily a wetlands protection act when it was passed, and Section 404 was made to fit that role. I think you have some of the residual of that in the way that the resource agencies have gone versus the way that the Corps has gone as a result of that. There probably are some things that Congress can do in the law to be more clear on just what it does want to see and what that objective is in wetlands protection.

Mr. **Roe**. Will the gentleman yield?

Mr. **Rowland**. Yes, I will yield to the gentleman.

Mr. **Roe**. Also when we wrote the Clean Water Act and put in some advanced thought processes viz-a-vis the non-point source runoff, we did interject new language in there that helps to start to define some of these issues. It probably is timely that these definitions that differ in the Clean Water Bill and the Water Resources Development Bill begin to be merged together so that we have a central policy, which I think has merit.

Mr. **Rowland**. I thank the gentleman for pointing that out.

Did I hear you say earlier that the Corps may not be as interested in saving wetlands as some of the resource agencies?

Mr. **Curtin**. I think that there is probably a difference of emphasis in what the Corps sets out to do under this program versus what the resource agencies see as their area of emphasis. The Corps' job and where they put their resources is in issuing permits and obviously in doing that, they are making judgments about the wetlands. As we said, they have denied a number of permits. They do protect some wetlands, but I think that their basic thrust, which you can see in their follow-through, inspection monitoring, and enforcement, is not to do a lot of wetlands protection but to help developers get their projects under way as well as they can.

The resource agencies clearly do devote much more attention to the wetlands protection aspect of the issue.

Mr. **Rowland**. The Corps is not as vigorous then in accepting what the resource agencies may have recommended in certain instances?

Mr. **Curtin**. I do not understand your question.

Mr. **Rowland**. They perceive the direction that they originally set out upon and do not really make any particular changes based on what the resource agencies recommend, right?

Mr. **Curtin**. In fairness, they do tend to be fairly receptive of modification recommendations. I think we said that in 80 percent or so of the cases in the five districts that we looked at, that they did accept recommendations for modifying the projects. They were not nearly as receptive though, only less than two-thirds of the cases where denial of the application was recommended, did the Corps go along with that recommendation. They are not as likely to accept a recommendation of denial, and again, it gets into the kinds of issues. They are making a judgment at that local district office as to whether or not there are other issues involved here besides the wetlands issue, and we do not object so much to the Corps being in that role, but we think that there needs to be a better mechanism for elevating those kinds of judgments beyond just——

Mr. ROE. Will the gentleman yield?

Mr. ROWLAND. Yes.

Mr. ROE. However, there is one very significant point. It's the expropriation of land without due compensation. We have got some people—I ran the Department of Conservation and Economic Development for about eight years, so I don't say this to be unkind—but there were some people there that thought every blade of grass, if you looked at it, then their world was falling apart. That was just their feeling. The courts have ruled in this country that you can not just arbitrarily deny somebody the use of their land through regulation. You do not have the right to do that without due compensation.

We tried to create a law in the State of New Jersey to prohibit building in a flood plain zone, and we did, and then the Supreme Court struck it down. They said that you can regulate building in there, but you can not deny it unless you are willing to pay for that property. I think that there is a very significant point here that some arbitrary agency does not have the right to come back and say, "Too bad, but I happen to like fish and wildlife and that should be wetlands and that's what it's going to be." If you are going to do that, then you have to pay me for it. You have taken away constructive use of my land. That ought to be said, too.

Mr. ROBINSON. I think that it is fair to say that the Corps, in their public interest review, is tasked with balancing many competing interests. The resource agencies, of course, are tasked with expounding on one particular interest.

Mr. ROE. If the gentleman would yield further? By the same token there is something in this country called citizens' rights. Now, government does sometimes get a little carried away. What the gentleman from Pennsylvania said a little earlier in this hearing was that I am eligible for due process in a fair amount of time. You do not have a right to hold me up for two or three years and to put me out of business. Tell me that I can't do it, and then I have redress to the courts, but don't take three years to make that decision. If the Federal Government believes that we ought to be setting aside wetlands, then we ought to be able to provide the law to be able to do it and the citizen ought to be protected because it is the citizen's land, not mine. I was elected to represent that citizen and I have a responsibility there, too. I think that there is a fair balance. You do not have the right to take away the rights of an individual citizen—that is not fair.

Thank you.

Mr. ROWLAND. The gentleman from New Jersey has said that two or three years is a long time to be jerked around. I am going to give you an example of some jerking around that has gone on for much longer than that in my district, a project that was proposed a good many years ago that I have neither supported not opposed. I made that commitment when I first assumed this office in 1983.

In my district there is a lake called Lake Alma that has never become a lake. It was first proposed in 1958 and in 1962 there was initial discussion begun about construction of that lake. In 1972 there was a Federal grant of $290,000 for the preliminary work on that and in 1976 the EPA and the U.S. Fish and Wildlife Service said that it was environmentally unacceptable. In 1978 the Fish and Wildlife Service said that it would not oppose the lake if greentree reservoirs offset the loss of the wildlife habitat, and the proponents agreed to build them. In 1981 EPA dropped its opposition to the lake and the Army Corps of Engineers granted a permit. In 1982 environmental groups sought an injunction against the permit. Then in 1983 the Corps was ordered to make a new assessment of environmental impact, including the effect of the greentree reservoirs. In 1987 the Corps reissued an environmental statement but the EPA reversed itself again and said that the lake was now unacceptable. In 1988 the Corps issued a permit to build the lake and the EPA proposed to veto it under Section 404. This goes on and on, and people in that community have been jerked around about this lake for all these years, which has certainly been a divisive influence in that county.

I guess that what this points out is that there are several different problems relative to trying to make decisions about preservation of wetlands. Is there any rule of thumb of what constitutes adequate mitigation? Is there any way to make a determination about that?

Mr. CURTIN. I don't think I can give you much on that, Congressman. I am afraid that there are all too many of those kinds of cases around the country and some of that is what builds up the antagonism between the agencies and adds to the confusion of the public, which we talked about earlier. I think again, that it points out the need for the agencies to work together better and for some of the initiatives that Mr. Roe talked about earlier in looking at these things more broadly in order to avoid these horror stories.

Mr. ROWLAND. I think you have pointed out very clearly and concisely on page 52 of your report that "It appears that the Corps and the resource agencies could establish a process through which differences of opinion concerning permitting decisions can be resolved."

Mr. Chairman, it seems to me that this is really the crux of the whole matter right here and that there should be some way that these differences could be addressed and worked out. Thank you very much.

Mr. OBERSTAR. The Chair certainly agrees with that viewpoint. That is one of the central recommendations of the GAO study and one that we will have to pursue further.

The Chair recognizes the gentlewoman from Maryland.

Mrs. BENTLEY. Thank you. I am very pleased that you are having this hearing on this very important subject. Like you and Mr. Roe, Mr. Clinger, Mrs. Johnson and Mr. Rowland, this is a subject that my people have been hitting me with over a period of time, and I am glad that you included Baltimore as one of your five Corps districts, because the Baltimore district covers my congressional district.

In your statement you pointed out that one district accepted all modification recommendations, while another accepted only 58 percent of them. Was Baltimore either one of those two?

Mr. **Niemi**. I don't believe so. I believe that all of the recommendations were accepted in the Omaha district; and in the case of the 58 percent, I'd have to check on that.

Mr. **Robinson**. I think it is fair to say that the relations between resource agencies and the Corps in the Baltimore district tend to be better than in other places.

Mrs. **Bentley**. Well, I know, for instance, in Baltimore County, where we have very strict laws and regulations concerning wetlands, a lot of the paperwork that is given to the Corps comes from the Baltimore County agencies because the Corps is so backed up.

Right now we have 1,600 applications, and it is a minimum of eight months of time to move them through, and that is with the assistance of these agencies which have even stricter regulations than the Corps does or than we do in the federal sector.

The one thing that bothers me, as Mr. Roe pointed out so well, is: what is wetland? I know a number of instances where there has just been a little bit of hydric soil on a couple of acres and they have stopped any development there altogether. And these are people who want to build a private home. It is not a development or anything. They have been stopped, again, because of hydric soil—a little bit of moisture in the ground, not a stream going through, just a little bit of moisture in the ground.

I think the need for definition and specific understanding of this is very, very important.

Now, we have in Maryland a Critical Areas Commission, which was passed by the State in 1984. There is no construction allowed any more within 1,000 feet of any shoreline that is flat. Now, the 1,000 feet of shoreline, yes, I think of that as wetlands. I think this is an excellent law.

But when we are going inland 40 miles or 50 miles away from any shoreline and we run into a little bit of moisture and we say we can't develop that, I think we need to define this very, very clearly.

We have one case right now where a son and a daughter inherited eight acres of land from their parents who recently died, and they had expected to be able to sell that for development. They can't because a little bit of moisture was found on it.

We have another instance where a family has been paying taxes at the rate of land that is able to be developed for years, and now that they are ready to move to do something about it it can't be developed, again because there is hydric soil there.

In this area I just think it is very questionable.

I am going to read the Baltimore portions very carefully. Also I ask permission to include a statement from me in the record.

Mr. **Oberstar**. Without objection.

[The prepared statement of Mrs. Bentley follows:]

STATEMENT OF
THE HONORABLE HELEN DELICH BENTLEY
BEFORE THE
SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT
HOUSE PUBLIC WORKS AND TRANSPORTATION COMMITTEE
SEPTEMBER 14, 1988

Thank you, Mister Chairman, and thank you, Mister Clinger.

The issue before this subcommittee today --- Implementation of Section 404 of the Clean Water Act by the Corps of Engineers --- is of great concern to me and my constituents.

There have been a number of concerns relating to Section 404, but of particularly importance is the difficulty in obtaining the necessary permits to develop along our shorelines, or to even make the simplest modifications to shoreline property.

The situation has reached the point whereby I am receiving letters and telephone calls from marine contractors, general contractors and developers regarding layoffs of employees because they do not have the appropriate permits to begin projects.

The Regulatory Office of the Baltimore District of the Corps of Engineers today has a backlog of 1,358 applications, down from a record high of 1,550 just last Spring.

The backlog decreased because of the diligent work of the 32 professional staff members and a cadre of temporary employees this past summer.

I fully expect that backlog to begin climbing once again, now that the summer employees have returned to college.

In 1985, and in prior years, the permit process took approximately 45 days for approval, but due to the current backlog an application sits in the Baltimore office from four to seven months before it is even given to a case worker; and depending on the degree of controversy associated with the project, it could it take an additional three months to two or three years for approval.

The increases in applications have continued relentlessly over the past four years,

In 1985, there was a 17 percent increase of FY 1984; in FY 1986, a 41 percent increase over FY 1985; in FY 1987, a 71 percent increase over FY 1986.

The increase during FY 1988 amounted to six percent, but we must keep in mind that while the applications have increased significantly, manpower has not increased and the regulatory funding has actually declined.

This backlog was caused for several reasons: the 1985 Supreme Court decision on wetlands, low interest rates, the settlement of a court suit against the 1982 Corps regulations and the denial of water quality certification and/or Coast Zone Consistency by the State of Maryland for some of the Corps 26 nationwide permits.

Mister Chairman, the problems and obstacles in obtaining wetland permits from the Corps of Engineers' office in Baltimore is not unique. It is a national problem.

I look forward to hearing the testimony from today's witnesses, with the view that we can development a mechanism for streamlining the application process so that projects may move forward in a timely fashion.

Thank you, Mister Chairman.

Mr. **Oberstar.** I thank the gentlewoman for those observations and concerns. I think they point up one of the frustrations that members have had with this program, going back to 1972 and the original Clean Water Act, of the conflicting interests and uses for wetlands, and the difficulty in writing legislation that responds to all geographic areas and all concerns that are reflected by our vast and diverse economy.

Clearly every agency and organization and individual has a different perspective. For the farmer, he has to pay tax on lowlands that are wet that have cattails growing on it, and he is paying tax on that land, but he isn't getting any revenue off of it. So his view is: develop it or take the tax off of it.

Hunters want to preserve that land for ducks and geese. Ecologists want to preserve it for its own use and for its own value and for its own intrinsic use. Developers look on these little bits of property that have water standing around on them, marshlands, as a hindrance. It is in the way of progress and growth and jobs and economic development. Communities see them for various differing purposes of economic growth, or perhaps some areas for preservation for tourism purposes.

So the unfortunate wetland has a very difficult time of it depending on who looks upon that land. And I think that what you have heard this morning is the frustration of members for over-long delays among the resource agencies and the administering agency of the Corps of Engineers who are handling this act, differing interpretations of what is wetland. All of these are not new. You have uncovered those in the course of your inquiry.

I guess the concern of this member—and I have served for all my 14 years in Congress on both Public Works Committee and the Merchant Marine and Fisheries Committee, both of which deal with wetlands from differing viewpoints.

It was clear at one point that farmers were probably taking more lands out of their designation by nature as wetlands than the Fish and Wildlife Service could preserve through other programs that Congress had enacted to protect wetlands.

Fish and Wildlife Service administers the various wetlands programs, as does the Department of Agriculture. We have one to buy wetlands from farmers; we have another to, in effect, acquire easements on wetlands.

Congress is appropriating in the neighborhood of $9 million to $10 million a year to pay farmers not to plow land, not to develop those marginal lands. Fish and Wildlife Service was doing an admirable job of vigorously trying to protect those wetlands; on the other hand, we are having farmers with the Department of Agriculture viewpoint: plant the land fence to fence so we can export more grain. And "fence to fence" meant "dig up the wetlands and pour lime into them and come in for all the subsidy programs that are under the Department of Agriculture."

And here, on the other side of the fence, is this Fish and Wildlife service saying, "Yes, but you are taking away breeding and nesting grounds and waterfowl grounds."

This wetlands issue that GAO has undertaken to analyze here is one of the most complex and one of the most perplexing conflict of laws and conflict of interests areas in the entire federal panoply of programs and responsibilities.

I commend you for the splendid job and for the insights that you have given us in this whole program.

The appeal process by the resource agency is cumbersome and difficult. And I think, as the report says, often resource agencies simply throw up their hands and say it is no use pursuing—it is too cumbersome, too difficult, no use appealing up the ladder.

What steps do you think can be taken to make that more simple, more streamlined, and provide a more useful and open discussion of the values at stake here?

Mr. CURTIN. That's one area that we were glad to see some activity in as we were finishing up our work. The Corps has started some discussions now with the resource agencies looking at some streamlined approaches, and I think that can pay off. I think that needs to be pursued pretty vigorously.

There are things like setting some better deadlines on responding to those kinds of appeals, and on having ways of getting to the right people fairly quickly without too many layers in the process, and those are the kinds of things that I think are feasible to work out between the agencies and should not be overwhelming problems, and I think that process is starting, and we hope to see some improvement there.

Mr. OBERSTAR. Another area—and I'll conclude with this, because if we don't we will not get on with the rest of our witnesses, and they have valuable contributions to make, as well—and that is the enforcement by the Corps of Engineers and by EPA after permits are granted. There is a kind of "They went thata way" attitude. The Corps says EPA has the authority; EPA says Corps is administering the program. The Corps has no revocations for a two-year period from 1984 to 1986; EPA has vetoed only five permits in 11 years, according to your report.

The poor U.S. Fish and Wildlife Service doesn't have a separate budget for 404 enforcement. They don't have the staff, the personnel—they don't even have enough staff, frankly, to run the programs they have, let alone additionally the 404 program.

Mr. CURTIN. Certainly EPA and the Corps have some things they can do in that enforcement area.

Mr. OBERSTAR. Does there need to be a more clear delineation, in your objective, professional analysis, of who has the responsibility for enforcement in which cases and under what circumstances?

Mr. CURTIN. Yes, and I think we are going to see some action there, as well. That is one of the recommendations in the report, and it is an area in which the Corps and the EPA have been talking now. I think we're going to see more efficient use of the existing enforcement resources if it is going to be impossible to come up with more resources for inspecting and following through with enforcement actions on these permitted activities and activities that are discovered on unpermitted areas.

What is going to have to happen is that the existing resources get better used, and we call for more coordination and more firm agreements on just how that is going to happen between EPA and the Corps, and they have started to address that. I think that is something worth pursuing, and that will have an impact.

What that will do, too, is have an impact on showing seriousness of purpose here: that small numbers of well-published enforcement actions can have an impact throughout the program and throughout the country.

Right now there is so little enforcement action being taken that I'm not sure anyone worries too much about it.

Mr. **Robinson**. There was some talk earlier about emotion and lack of will, and I think that is pertinent here. When you see cases where developers proceed to destroy hundreds and thousands of acres of wetlands without permits, and the punishment is one Cease and Decease Order after another as the wetland proceeds to vanish, I think it certainly raises questions about some seriousness and purpose and will—in some cases, at least.

Mr. **Oberstar**. I appreciate those responses. Thank you very, very much.

Are there any burning questions that any other members have that just absolutely cannot wait until another time?

Mrs. **Johnson**. Mr. Chairman, could I just ask for a clarification?

Mr. **Oberstar**. Yes.

Mrs. **Johnson**. I had asked Mr. Curtin to provide some information on the 20 percent and the 37 percent, and in reading your document a little more closely it says that "sometimes the staff that object can't get the support of their own agencies in such matters."

In looking at the 37 percent of the permits that were granted over the denial recommendations, could you differentiate for me in the information you get back to the committee between those resource agency comments that were not supported by the resource agency head for elevation as opposed to those that were?

It may be that the agency head, seeing it in the larger context of the agency mandate, didn't agree with the individual staffer. It may be that the agency felt that the agency didn't have the staff to do this.

But we need to try to differentiate between those things that are a matter of staff resources and enforcement capability and those that were judgments that were disagreed with.

Thank you.

Mr. **Robinson**. It is somewhat difficult to provide a very precise answer to that one, because I'm sure where disagreements within agencies occur they occur for a variety of different reasons—some perhaps technical, others perhaps political expediency within the——

Mrs. **Johnson**. I understand——

Mr. **Robinson**. It's very difficult.

Mrs. **Johnson** [continuing]. That there is often a reluctance when it comes to people like you asking to really acknowledge those differences, but I think we need to try to get some sense of those issues, as well.

Thank you.

Mr. **Oberstar**. Do your best in responding. I am sure the gentlewoman from Connecticut will be very persistent in pursuing a question, once asked.

[The following was received from GAO:]

Our work was primarily concerned with reviewing files on individual cases at five Corps district offices. These files contained resource agency comments on proposed projects, but they did not contain comments or negotiations that occurred among officials of the resource agencies as to how they should react to Corps rejections of their recommendations. Therefore, we cannot provide case-by-case information on denial recommendations that were not pursued at higher levels within the resource agencies. The information we obtained regarding reasons for resource agencies not pursuing elevation was testimonial in nature. For example, one of the reasons provided by resource agency filed staff for not pursuing elevation was their belief that their superiors did not want to deal with elevation requests, but would rather have staff deal with the situations at the field office level.

Mr. **Oberstar**. Thank you very, very much for your presentation and for the splendid work of over a year in preparing this report.

[Mr. Curtin's prepared statement and GAO report: Wetlands—The Corps of Engineers Administration of the section 404 program follow:]

United States General Accounting Office

GAO Testimony

For Release
on Delivery
Expected at
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Sept. 14, 1988

Administration and Enforcement of the Section 404 Program

Statement of
Neal P. Curtin, Deputy Director
Resources, Community, and Economic
Development Division

Before the
Subcommittee on Oversight and
Investigations
Committee on Public Works and
Transportation
House of Representatives

Dear Mr. Chairman and Members of the Subcommittee:

We are pleased to be here today to discuss our recently issued report on the extent to which the program authorized under Section 404 of the Clean Water Act is protecting the nation's wetlands.[1] This work, done at your request, examined the following issues:

-- the overall impact of the Section 404 program in controlling wetlands losses,

-- the extent to which the Corps of Engineers considers federal resource agencies' comments during the Section 404 permitting process, and

-- how the Corps and the Environmental Protection Agency (EPA) enforce program requirements.

We performed our review work at 5 of the 36 Corps district offices. In addition to our work at the Corps, we contacted officials from other federal agencies involved in the program. They are commonly referred to as "resource agencies" and include the EPA, Fish and Wildlife Service, and National Marine Fisheries Service. To assess the Corps' performance in issuing and enforcing permits, we selected and evaluated random samples from three universes--individual permits, suspected unpermitted discharges, and general permits.

In summary, the Section 404 program, as currently authorized, does not provide the Corps with the authority to regulate activities that result in the majority of wetlands losses each year. However, the Corps and the resource agencies disagree concerning whether the Corps is doing all it can to protect wetlands under existing program authority. Although the Corps districts generally consider resource agencies' comments on permit applications, they often do not adopt recommendations that would lead to project modifications or denial. Resource agencies are concerned over the Corps' nonacceptance of some recommendations, but they infrequently use their authority to appeal Corps permit decisions to higher levels within the Corps. Finally, monitoring and enforcement of Section 404 program requirements is not a high priority in the districts we visited, and EPA has used its significant authority to enforce the program sparingly.

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[1] Wetlands: The Corps of Engineers' Administration of the Section 404 Program (GAO/RCED-88-110, July 1988).

I would like to discuss each of these findings in greater detail and then present our related observations and recommendations.

SECTION 404 PROGRAM NOT CONTROLLING MOST WETLANDS LOSSES

Wetlands, which provide many important ecological benefits, have been disappearing at the rate of 300,000 to 500,000 acres a year nationwide, according to some estimates. Section 404 is the primary legislative authority behind federal efforts to control wetlands use. However, because of the many statutory exemptions and other jurisdictional limits to Section 404 regulatory requirements, permitting and related enforcement action under Section 404 do not provide the basis for a comprehensive wetlands protection program.

As the program is currently structured, the Corps does not have the authority to regulate activities such as normal farming and draining that occur in wetlands. These activities cause most wetlands losses. Notwithstanding the limitations in the regulatory authority provided by Section 404, the Corps and the resource agencies agree that some wetlands are being protected as a result of Section 404 program requirements. However, neither the Corps nor any of the resource agencies maintain comprehensive, nationwide information on the acreage of wetlands that the Section 404 program protects.

While recognizing the limits to the Section 404 program's jurisdiction, the resource agencies disagree over whether the Corps is administering the program in a manner that protects as much wetlands acreage as it could. The resource agencies believe that the Corps is interpreting certain key provisions of program regulations and guidance too narrowly. Included among the areas of disagreement are determinations on how to (1) delineate wetlands boundaries, (2) assess the cumulative impacts of individual permit decisions, and (3) consider practicable alternatives to development in wetlands. In some cases these differences can result in substantially different determinations over the extent to which a proposed permit site would be classified as a wetland and subject to the act's regulatory requirements. For example, in one Corps district's area of coverage, we were advised that it is not uncommon that the district would determine that about 20 to 25 percent of a site is regulated wetlands, whereas a resource agency would determine that 80 percent of the site is wetlands.

CORPS DISTRICTS CONSIDER BUT OFTEN DO NOT IMPLEMENT RESOURCE AGENCY RECOMMENDATIONS

Although the Corps districts and the resource agencies we visited disagree about several key provisions affecting the program's administration, they engaged in frequent negotiations over the scope of some Section 404 permit applications. The policies for involving the resource agencies varied by Corps district, and the resource agencies differed in their assessments of how well the Corps has involved them in the early stages of permit consideration. Overall, however, we found that the Corps is generally soliciting and considering resource agency views during the Section 404 permitting process. Furthermore, in most cases for which they receive applications on which to comment, the resource agencies do not express major concerns with proposed projects and do not object to permit issuance.

There are cases, however, where these agencies object to issuing permits and other cases where they make suggestions for major modifications to proposed projects. On the basis of our sample results at 5 Corps districts, we estimate that in fiscal year 1986, the resource agencies recommended denying permits for 111 of the estimated 1,419 applications on which they commented. We estimate that the Corps districts issued permits over these denial recommendations in 37 percent of these cases.

The Corps districts accepted a greater number of the resource agency recommendations to modify proposed projects. Of the estimated 2,277 modifications recommended by the resource agencies, the districts accepted 1,822, or about 80 percent. Individual Corps districts varied significantly in their willingness to adopt recommended modifications, however. One district accepted all modification recommendations, while another accepted only 58 percent of them.

Not all Corps districts provided the resource agencies with feedback on the reasons for rejecting their recommendations. During our work, Corps officials identified a variety of reasons for not adopting resource agency recommendations. These reasons included their belief that (1) recommendations were already included in state permits, (2) the recommended alternatives were not feasible, and (3) the suggestions were based on resource agency policies that differed with the Corps'.

Infrequent Use Of Elevation and "Veto" Authority

Although the federal resource agencies did not always agree with final Corps permitting decisions, the agencies elevated few of these disagreements to higher levels within the Corps in accordance with procedures specified in memorandums of agreement with the Corps. Three of the districts we visited had no elevations during the past 3 fiscal years. According to resource agency officials, the agencies rarely elevate disagreements because elevation procedures are very cumbersome and time-consuming, elevations rarely result in changes to district engineer decisions, their own agencies discourage use of the elevation authority, and most disagreements involve wetlands fills of comparatively small size.

In addition to being able to elevate district engineer permitting decisions, EPA can "veto" permit decisions. However, since passage of the Clean Water Act of 1977, EPA had completed such action only five times nationally.

THE CORPS AND EPA DO NOT EMPHASIZE MONITORING AND ENFORCEMENT ACTIVITIES

The Corps and EPA share enforcement responsibility under Section 404. Neither agency has emphasized surveillance to detect unauthorized activities, and the Corps does not inspect all sites to ensure that permittees adhere to permit conditions. In many cases, surveillance and monitoring takes place only when it can be combined with some high-priority district activity, such as site investigations during permit processing.

The Corps, which has assumed the bulk of the enforcement effort under the program, has delayed some investigations of reported unauthorized activities for months after they were reported, or it did not investigate them at all. As a result, some unauthorized activities may have gone undetected, and wetlands may have been filled unnecessarily. According to district officials, Corps personnel are primarily involved in permit processing, whereas monitoring has received a low priority.

In pursuing identified violators of permit requirements, the Corps rarely used available civil or criminal remedies, preferring instead to rely on administrative procedures to attempt problem resolution. This was true even in some cases that involved repeat offenders or those who failed to comply with Corps cease-and-desist orders. When the Corps did take action on unauthorized activity cases, it usually either required violators to restore affected areas to their original condition or accepted applications for permits that would then undergo a public interest review.

In the five districts, only six civil actions and no criminal actions were documented as having been pursued by the Corps districts during fiscal years 1984 to 1986. Two monetary fines imposed as a result of Corps-initiated action were documented. The Corps districts also suspended or revoked few permits when permittees did not comply with permit conditions. No permit revocations occurred during fiscal years 1984 to 1986, and we documented a total of 16 suspensions that occurred during varying time periods in the 5 districts.

EPA, which has independent enforcement authority for unpermitted activities, has used its authority sparingly, even though most of the suspected violations reported each year involve unpermitted discharges of materials. EPA indicated that staff and funding levels for the Section 404 program limit the extent to which it can participate in enforcement activities.

In conclusion, Mr. Chairman, we found significant differences in how the Corps and the resource agencies believe the Section 404 program should be implemented. These differences appear to be affecting the degree to which the nation's wetlands are protected, and they are unlikely to be fully resolved without further legislative guidance. Therefore, in our report, we suggested that the Congress may wish to consider establishing clearer criteria regarding certain key provisions affecting the administration of the Section 404 program, such as how to delineate wetlands and the extent to which practicable alternatives to filling wetlands must be considered.

Regarding its implementation of the Section 404 program, the Corps points to staff and budget constraints as the primary reasons for not taking a more active role in enforcing the program and making other program improvements. However, we believe that some improvements can be made without major expense, and that other actions would actually make existing program expenditures by the Corps and resource agencies go further. Accordingly, we recommend that the Corps:

-- develop baseline information that will enable it to determine the extent of the Section 404 program's impact on wetlands;

-- work with the federal resource agencies to develop consistent and workable procedures for (1) considering practicable alternatives to filling wetlands, (2) delineating wetlands coming under the program's jurisdiction, and (3) allowing resource agencies to appeal district engineers' permit decisions; and

-- work with EPA to develop a coordinated enforcement program utilizing the resources of both agencies to provide for surveillance, inspection, and penalty assessment when appropriate.

Mr. Chairman, this concludes my prepared remarks. I would be happy to respond to questions at this time.

United States General Accounting Office

GAO

Report to the Chairman, Subcommittee on Investigations and Oversight, Committee on Public Works and Transportation, House of Representatives

July 1988

WETLANDS

The Corps of Engineers' Administration of the Section 404 Program

GAO/RCED-88-110

GAO **United States**
General Accounting Office
Washington, D.C. 20548

Resources, Community, and
Economic Development Division

B-230511

July 28, 1988

The Honorable James Oberstar
Chairman, Subcommittee on Investigations
and Oversight
Committee on Public Works and
Transportation
House of Representatives

Dear Mr. Chairman:

This report discusses the permit program administered by U.S. Army Corps of Engineers district offices in Baltimore, Maryland; Jacksonville, Florida; Omaha, Nebraska; Portland, Oregon; and Vicksburg, Mississippi, under Section 404 of the Clean Water Act of 1977. The report contains several recommendations to the Secretary of the Army for improving the permitting and enforcement aspects of the program.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from the date of this letter. At that time we will send copies to the Secretary of Defense; the Secretary of the Interior; the Administrator, Environmental Protection Agency; the Secretary of Commerce; the Director, Office of Management and Budget; and various congressional committees. Copies will also be made available to other interested parties upon request.

This work was performed under the direction of James Duffus III, Associate Director. Other major contributors are listed in appendix VI.

Sincerely yours,

J. Dexter Peach

J. Dexter Peach
Assistant Comptroller General

Executive Summary

Purpose

Wetlands, which generally include swamps, marshes, bogs, estuaries, and similar areas, have been disappearing at the rate of about 300,000 to 500,000 acres a year. In the past, wetlands have been considered unimportant areas to be filled or drained for various uses. Only recently have the important ecological benefits provided by wetlands come to be widely recognized.

Federal regulation of wetlands development is exercised through Section 404 of the Clean Water Act of 1977. In response to a congressional request, GAO reviewed the U.S. Army Corps of Engineers' (Corps) administration of several Section 404 regulatory program elements, including (1) coordination with federal resource agencies during the permitting process, (2) enforcement of permitting requirements, and (3) sanctions imposed on those who fail to adhere to such requirements. GAO also reviewed information on the overall impact of the program in protecting wetlands.

Background

The Corps of Engineers is the primary federal agency responsible for regulating wetlands development under Section 404. Section 404 authorizes the Corps to issue or deny permits for the discharge of dredged or fill materials into U.S. waters.

Other federal agencies and the states have roles in the program's implementation. The other agencies most heavily involved in the program are the Environmental Protection Agency (EPA), the National Marine Fisheries Service in the Commerce Department, and the Fish and Wildlife Service in the Interior Department (so-called resource agencies).

In conjunction with the Secretary of the Army, EPA develops guidelines governing the selection of sites for disposal of dredged or fill materials. EPA can specifically prohibit the disposal of some of these materials. The other federal resource agencies can make advisory comments on permit applications and report suspected permit violations. The states may, in certain circumstances, assume responsibility for issuing Section 404 permits.

If the Corps or EPA finds that projects are not in compliance with permit requirements, they may take enforcement action against the violators. Enforcement action may include civil, criminal, or administrative penalties or permit suspension and revocation sanctions authorized under the act.

Results in Brief

The Section 404 program as currently authorized does not provide the Corps with the authority to regulate activities that result in the majority of wetlands losses each year. However, the Corps and the resource agencies disagree concerning whether the Corps is doing all it can to protect wetlands under existing program authority.

Although the Corps districts generally consider resource agencies' comments on permit applications, they often do not adopt recommendations that would lead to project modifications or denial. Resource agencies are concerned over the Corps' nonacceptance of some recommendations, but they infrequently use their authority to appeal Corps permit decisions.

Corps districts we visited do not systematically seek out violators of Section 404 permit requirements, nor do they always conduct follow-up investigations of suspected violations brought to their attention. Also, EPA exercises limited involvement in the program's enforcement.

In pursuing violators, the Corps rarely uses available civil or criminal remedies and suspends or revokes few permits, preferring instead to seek voluntary correction of the violations observed. This was also true for some of the more serious violations in GAO's samples.

Principal Findings

Program Results

Many activities, such as normal farming and draining that occur in wetlands, are not regulated under Section 404. Although these unregulated activities cause most of the wetlands losses each year, the Corps and the resource agencies do not maintain comprehensive information on the program's impact on wetlands.

The Corps and the resource agencies envision the objectives of the Section 404 program differently and consequently have different views of the program's success. The resource agencies believe, for example, that the Corps is not (1) delineating wetland boundaries broadly enough, (2) considering cumulative impacts of permit decisions, and (3) requiring permit applicants to consider practicable alternatives to development activities in wetlands. The Corps believes that it is acting within the limits of the program's jurisdiction.

Agency Coordination

The Corps districts GAO visited considered resource agency recommendations, but in many cases they used their discretionary authority and did not require changes to permits to address them. These included cases where resource agencies recommended permit denials or project modifications. For example, three resource agencies recommended denial of an application to build a shopping center in a wetland. The Corps issued a permit over the objections of these agencies. The resource agencies, however, rarely appealed cases when they disagreed with district engineer permitting decisions because they believe that the appeal process is cumbersome and ineffective.

Monitoring and Enforcement

Because neither the Corps nor EPA has systematic surveillance programs to detect unauthorized activities, undetected violations of Section 404 permit requirements may be occurring. Also, some suspected unauthorized activities reported to the Corps may not be investigated for months after they are reported, and many projects are not inspected by the Corps for compliance with permit conditions.

The Corps rarely pursues civil or criminal remedies against violators of permit requirements, nor does it often suspend or revoke permits. The Corps prefers to negotiate restoration of the adverse effects or allow submission of permit applications that would then have to undergo public review. This was true in some GAO sample cases that involved repeat offenders or the failure to comply with Corps orders to stop the unauthorized activities.

EPA, which has enforcement authority for unpermitted discharges, has used its authority sparingly even though most reported violations involve the failure to obtain permits.

Recommendations

In order to improve administration of the Section 404 program, GAO recommends that the Secretary of the Army direct the Chief, Corps of Engineers, to

- develop baseline information that will enable the Corps to determine the extent of the Section 404 program's impact on wetlands;
- work with the federal resource agencies to develop consistent and workable procedures for (1) considering practicable alternatives to filling wetlands, (2) delineating wetlands coming under the program's jurisdiction, and (3) allowing resource agencies to appeal district engineers' permit decisions; and

- work with EPA to develop a coordinated enforcement program utilizing resources of both agencies to provide for surveillance, inspection, and penalty assessment when violations occur.

Matter for Congressional Consideration

There are significant differences in the manner in which the Corps and the resource agencies would implement the Section 404 program. For example, fundamental differences or problems were noted in the manner in which the Corps (1) delineates wetlands coming under the jurisdiction of the Section 404 program, (2) considers practicable alternatives to the filling of wetlands, and (3) considers the cumulative impacts of many individual permit decisions. Because it appears that these differences affect the extent to which wetlands are protected and they are unlikely to be fully resolved among these agencies, the Congress may wish to clarify Section 404 of the Clean Water Act.

Agency Comments

The Departments of Defense, Commerce, and the Interior generally agreed with the facts as presented in a draft of this report. Defense concurred with all of GAO's recommendations except the one to develop baseline information on the program's impact on wetlands. Defense believes such a requirement would be unrealistic in light of its limited staff and funding. GAO continues to believe that it is realistic to collect much of the information needed and, in fact, found that some Corps districts already compile such information.

EPA expressed concern that its authority and responsibilities in administering the Section 404 program were not adequately recognized. GAO believes that it has adequately recognized and described EPA's significant role in this area. GAO also pointed out, however, that EPA has used its authority sparingly.

Agency comments and GAO's responses are discussed at the end of chapters 2, 3, and 4 and in appendixes II through V.

Contents

Executive Summary 2

Chapter 1 Introduction 8
- The Clean Water Act's Federal Wetlands Protection Authority 8
- Organizational Responsibilities Under the Section 404 Program 9
- The Section 404 Permitting Process 11
- Monitoring and Enforcement of Section 404 Permit Requirements 14
- Objectives, Scope, and Methodology 16

Chapter 2 Section 404 Program Not Controlling Most Wetlands Losses 19
- Limitation on Jurisdiction of Section 404 Program 19
- Data Lacking to Precisely Measure Impact of Section 404 Regulations on Wetlands 20
- Extent of Regulatory Jurisdiction Could Change With Different Interpretations of Regulations and Guidance 23
- Conclusions 32
- Matter for Consideration by the Congress 33
- Recommendations to the Secretary of the Army 33
- Agency Comments and Our Evaluation 34

Chapter 3 Corps Districts Consider but Often Do Not Implement Resource Agency Recommendations 37
- Pre-Permit Coordination Varies by Corps District 37
- Corps Districts Vary in Their Acceptance of Resource Agency Recommendations 41
- Infrequent Use of Elevation and "Veto" Authority 48
- Conclusions 51
- Recommendations to the Secretary of the Army 53
- Agency Comments and Our Evaluation 53

Chapter 4 The Corps Does Not Emphasize Monitoring and Enforcement Activities 55
- Unauthorized Activities May Not Be Detected 55
- Corps Investigations of Suspected Unauthorized Activities Sometimes Delayed for Long Periods 58
- Limited Involvement of EPA in Enforcing Section 404 60
- The Corps Does Not Inspect All Permits for Compliance With Conditions 62

Corps Districts Use Administrative Rather Than Civil and Criminal Remedies Even When Violations Appear Serious 65
Few Permits Are Suspended or Revoked 72
Conclusions 73
Recommendations to the Secretary of the Army 74
Agency Comments and Our Evaluation 74

Appendixes

Appendix I: Additional Details on Sample Selection 76
Appendix II: Comments From the Department of Defense 80
Appendix III: Comments From the Environmental Protection Agency 100
Appendix IV: Comments From the Department of the Interior 110
Appendix V: Comments From the Department of Commerce 115
Appendix VI: Major Contributors to This Report 122

Tables

Table 3.1: Resource Agency Modification Recommendations Accepted by the Corps 46
Table 3.2: Resource Agency Use of Elevation Authority by Fiscal Year 48
Table 4.1: Timeliness of Corps' Investigation of Reported Suspected Unauthorized Activities 59
Table 4.2: Corps' Compliance Inspections at Sample Sites 62
Table I.1: Sample Cases 76

Figure

Figure 1.1: Application Evaluation Process 15

Abbreviations

EPA	Environmental Protection Agency
FWS	U.S. Fish and Wildlife Service
GAO	U.S. General Accounting Office
NMFS	National Marine Fisheries Service

Chapter 1

Introduction

Wetlands, which generally include swamps, marshes, bogs, estuaries, and similar areas, provide many benefits. These benefits include providing important habitat for fish, waterfowl, and other birds and wildlife; maintaining water quality and aquatic productivity; aiding flood control, erosion control, and groundwater recharge; and offering recreation opportunities and improved aesthetics. Historically, wetlands have been considered unimportant, even worthless, areas to be filled or drained for various uses. As a result, they have been disappearing to the extent that in some areas few wetlands remain. Recently, however, as evidenced by activities such as the Conservation Foundation's current National Wetlands Policy Forum, wetlands have become a subject of interest and their value has become more widely recognized.

Consequently, wetland losses, which the U.S. Fish and Wildlife Service (FWS) estimates averaged about 458,000 acres per year from the mid-1950s to the mid-1970s, are now a matter of much concern. During this period, wetlands declined from an estimated 108 million acres in the lower 48 states to 99 million acres. (This net loss of 9 million acres considers a gain of about 2 million acres of newly created wetlands.)

The Clean Water Act's Federal Wetlands Protection Authority

The objective of the Clean Water Act of 1977 (33 U.S.C. 1251), which amended the 1972 amendments to the Federal Water Pollution Control Act, is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. Although it does not authorize a comprehensive wetlands management program, Section 404 of the act provides the primary legislative authority behind federal efforts to control wetlands use. Since its enactment, the Section 404 program has been the subject of much controversy concerning the extent to which Section 404 is to function as a wetlands protection law.

The Section 404 regulatory program is composed of two basic elements—permitting and enforcement. Permits are issued to regulate discharges of dredged or fill materials into waters of the United States, including wetlands. Corps regulations state that the discharge of dredged material includes the addition of material to specified discharge sites located in waters of the United States and the runoff or overflow from a contained land or water disposal area. Fill material, according to Corps regulations, includes any material used primarily for replacing an aquatic area with dry land or changing the bottom elevation of a body of water. Subsequent to permit issuance, Section 404 requires that permits be enforced and authorizes the use of civil and criminal penalties for failing to adhere to permit requirements.

Some activities are exempt from the Section 404 regulatory provisions; many of these have resulted in significant wetlands losses. Among these activities, which are described in Section 404 (f) of the act, are

- normal agriculture, silviculture (forestry), or ranching;
- maintenance or reconstruction of certain serviceable structures, including dikes, dams, breakwaters, causeways, or bridge abutments;
- construction or maintenance of farm or stock ponds, or irrigation ditches, or the maintenance of drainage ditches;
- construction or maintenance of farm or forest roads, or temporary roads for moving mining equipment; and
- congressionally approved projects for which an environmental impact statement has been filed.

Many of these activities would, however, require a permit according to Section 404(f)(2) of the act if their purpose is to convert an area of U.S. waters to a use to which it was not previously subject and if the flow or circulation of such waters is impaired or their reach is reduced. For example, under a ruling by the U.S. Court of Appeals for the Eleventh Circuit, a Section 404 permit was required to construct a fish farm that was not part of an ongoing operation, but was a new use of the land.[1]

Organizational Responsibilities Under the Section 404 Program

Several federal agencies and the states have roles in implementing the Section 404 program. This participation extends from commenting on various types of permits to the detection of unpermitted activities and the enforcement of permit requirements. The Secretary of the Army, acting through the Corps of Engineers (Corps) has responsibility for issuing permits under the Section 404 program and enforcing permits. Other federal agencies that have roles in the Section 404 permitting and enforcement processes are the Environmental Protection Agency (EPA), the National Marine Fisheries Service (NMFS) under the National Oceanic and Atmospheric Administration, and the FWS. These three federal agencies are known as "resource agencies."

EPA is perhaps the most influential of the resource agencies because under the act, selection of sites for disposal of dredged or fill materials into waters of the United States must be in accordance with guidelines developed by the EPA in conjunction with the Secretary of the Army. These are known as the 404(b)(1) Guidelines. In addition, the Attorney General ruled in 1979 that EPA has the responsibility for construing the term "navigable waters" (waters of the U.S., including the territorial seas) and for making interpretations of the scope of 404(f) exemptions under the Section 404 program.

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[1] Conant v. U.S., 786 F 2d 1008 (11th Cir. 1986).

Also, EPA has what is often referred to as "veto" authority under Section 404(c) of the Clean Water Act. Even where the Corps has already approved a permit, EPA may prohibit the disposal of dredged or fill materials at any site if use of the site will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas, wildlife, or recreational areas. EPA can also take enforcement action, including issuing administrative orders against those who discharge such materials without required Section 404 permits. These administrative orders, which are court enforceable, can impose corrective measures and monetary penalties on those who engage in unauthorized fill activities.

Under the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 662), the Corps is required to consult with FWS and NMFS and to give full consideration to their recommendations in evaluating a permit application. Although the comments from these agencies are advisory, they may serve as the basis for modifying, conditioning, or denying a permit.

The Clean Water Act also authorizes the states to assume certain responsibilities that can directly affect the issuance of 404 permits. Section 401 of the act requires states to issue water quality certificates or waivers of certificates before the Corps can issue a Section 404 permit. In addition, the Coastal Zone Management Act of 1972, as amended (16 U.S.C. 1456 (c)), provides that a timely objection by a state with a federally approved Coastal Zone Management Program to a consistency certification filed by an applicant for a Corps permit precludes the Corps from issuing a Section 404 permit, unless the Secretary of Commerce finds that the activity is either consistent with the objectives of the Act or necessary in the interest of national security.

Finally, under Section 404(g), the states may assume responsibility for issuing permits in certain waters under their jurisdiction in accordance with criteria developed by EPA. Michigan is currently the only state with this authority, although according to EPA officials, other states may soon be prepared to assume such responsibility. (Among the states we visited, Oregon is considering assuming this responsibility.)

The Section 404 Permitting Process

In fiscal year 1986, the Corps issued approximately 10,500 permits. About 3,000 applications were cancelled or withdrawn, and the Corps denied an estimated 500 applications. The decision whether to approve a permit and, if so, the conditions under which it will be authorized, is determined by balancing input from many sources such as the resource agencies, concerned individuals, and the states, among others. This process is referred to as a public interest review, which is conducted simultaneously with the 404 (b)(1) Guidelines evaluation. As part of this review process, the Department of the Army, EPA, and the Departments of the Interior, Agriculture, Commerce, and Transportation have established interagency agreements under which these agencies can comment on permit applications. The agreements allow agencies to request higher level review within the Department of the Army when the agencies disagree with permit decisions made by district engineers. This appeal process is referred to as an agency's "elevation" authority.

The Corps must consider many factors during its public interest review, including wetlands values, conservation, economics, aesthetics, general environmental concerns, historic values, fish and wildlife values, flood damage prevention, land use, navigation, recreation, water supply, water quality, energy needs, safety, food production, and, in general, the needs and welfare of the public. A permit will be granted unless the district engineer determines that it would be contrary to the public interest. In some cases the availability of practicable alternatives to proposed activities and the beneficial effects of proposed mitigative measures to lessen the adverse environmental impacts of projects are considered in this process as well.

Upon receipt of a permit application, the Corps determines whether an individual permit is needed. If so, a public notice is prepared containing information on the nature and magnitude of the project to evaluate the probable impact on the public interest. Copies of the notice are forwarded by the Corps to each federal and state resource agency and distributed to local agencies and the public for review and comment. Generally, the comment period for standard individual permits ranges from 15 to 30 days.

In addition to the 404(b)(1) Guidelines evaluation, the Corps uses three general criteria for evaluating permit applications:

- the relative extent of the public and private need for the proposed structure or work;

- the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work; and
- the extent and permanence of the beneficial or detrimental effects that the proposed structure or work may have on the public and private uses to which the area is suited.

The specific weight of each factor is determined by its importance and relevance to the particular proposal. Therefore, the weight given to each factor could vary with each proposal.

The Corps organization is highly decentralized. As a result, regulatory program management and administration have been delegated to its 36 district engineers and 11 division engineers. Policy oversight is exercised by the divisions and by Corps headquarters. Under this structure, Corps regulations vest the decision to issue or deny permit applications in its district or division engineers. Except in unusual circumstances, this authorization also allows district engineers to modify, suspend, or withdraw permits without approval from higher Corps authorities.

Fiscal year 1987 expenditures for the Corps regulatory program were about $56 million. The Corps regulatory program is based on authorities and responsibilities in Section 404 of the Clean Water Act; Section 10 of the Rivers and Harbors Appropriation Act of 1899 (33 U.S.C. 403); and Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972, as amended (33 U.S.C. 1413). Section 10 prohibits the obstruction or alteration of navigable waters of the United States without a permit from the Corps. Section 103 authorizes the Corps to issue permits for the transportation of dredged material for the purpose of dumping it into ocean waters. An estimated $38 million to $40 million of the $56 million regulatory program funding was for permit processing activities, and $12 million to $13 million was for enforcement-related activities. The remainder was for miscellaneous studies and regulatory authorities.

In addition to individual permits, district and division engineers have authority to issue alternate types of permits such as letters of permission and regional general permits. If a district engineer makes final permit decisions in accordance with procedures and authorities contained in Corps regulations, no formal administrative appeal of those decisions is available to the applicant.

Letters of permission may be used in lieu of individual-permits where, in the opinion of the district engineer, the proposed work would be minor, not have significant individual or cumulative impact on environmental values, and not be expected to encounter appreciable opposition. In such situations, the proposal is coordinated with concerned agencies and generally adjacent property owners who might be affected by the proposal, but the public at large is not notified.

The Corps may also issue general permits, which cover activities it has identified as being substantially similar in nature and causing only minimal individual and cumulative environmental impacts. These include the placement of certain navigational aids, bank stabilization activities, and the placement of fish and wildlife harvesting devices such as lobster traps. These permits may cover activities in a limited geographic area, a particular region of the country, or the nation. Processing the initial general permits includes a public notice period and the opportunity for public hearings. Nationwide general permits are issued by the Chief of Engineers through the Federal Register rulemaking process. Corps regulations include 26 nationwide general permits.[2]

At the permit application stage, the Corps often processes Section 404 permit applications concurrently with permits under Section 10 of the Rivers and Harbors Appropriation Act. These joint permit applications will show up in statistical reporting as Section 10/404 permits. Processing of Corps permits generally proceeds through three steps: pre-application consultation (for major projects), formal project review, and decision-making.

Pre-application consultation usually involves one or more meetings between an applicant, Corps district staff, interested resource agencies (federal, state, or local), and sometimes the interested public. The basic purpose of such meetings is to provide for informal discussions about the advantages and disadvantages of a proposal before an applicant makes irreversible commitments of resources. The process is designed to provide the applicant with an assessment of the viability of the project and to discuss possible alternatives that would accomplish the project's purposes with less adverse impacts on the environment.

Once a complete application is received, the formal review process begins. Corps districts operate under what is called a project manager system, with one individual responsible for handling an application from receipt to final decision. The project manager prepares the public notice, evaluates the impacts of the project and all comments received, negotiates necessary project modifications if required, and prepares appropriate documentation to support a recommended permit decision. The permit decision document includes a discussion of the project's environmental impacts, the findings of the public interest review, and any special evaluation required by the type of activity such as whether the project complies with the Section 404(b)(1) Guidelines that establish criteria for the specification of disposal sites for dredged or fill material. Figure 1.1 shows the normal procedures involved in issuance of a Section 404 permit.

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[2] The 26 permits are described in 33 C.F.R. 330.5.

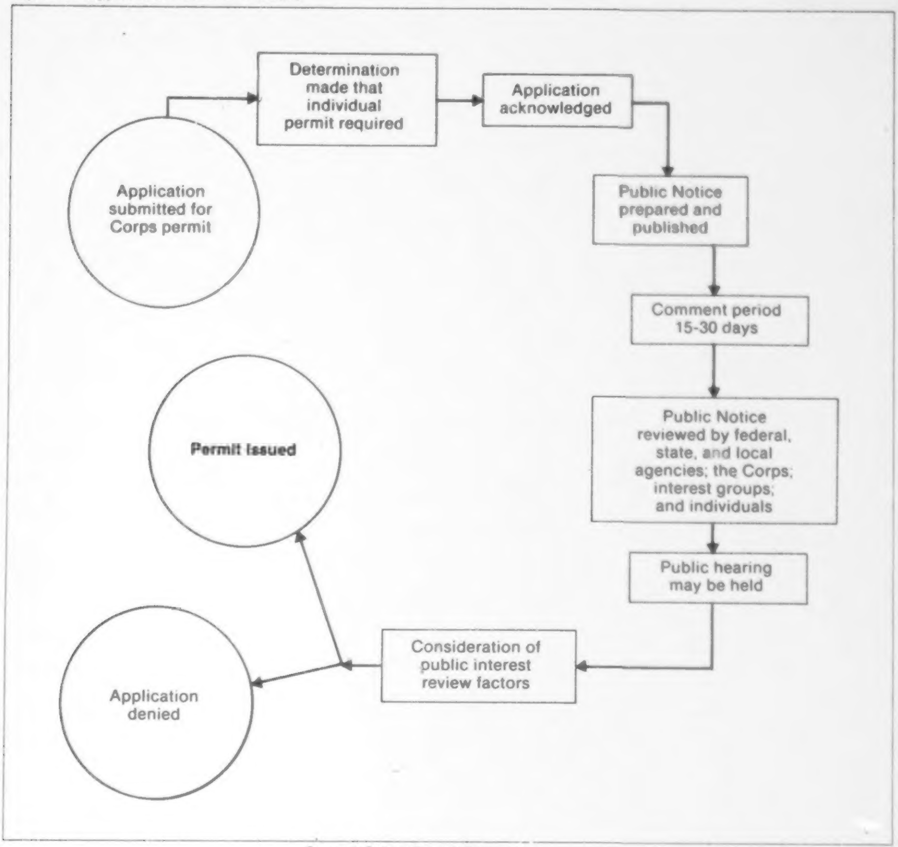
Monitoring and Enforcement of Section 404 Permit Requirements

The Corps and EPA must be concerned with detecting suspected unauthorized (unpermitted) activities and/or violations of conditions in issued permits. The Corps is primarily responsible for violations of permit conditions, but has also been involved in enforcement actions regarding unpermitted discharges. EPA is primarily responsible for the enforcement of the Section 404 program with regard to unauthorized activities by parties who have failed to obtain required permits. Inspection and surveillance activities to detect unauthorized activities are carried out by Corps employees, members of the public, and other interested federal, state, and local agencies. In some cases formal memorandums of agreement exist governing how these activities will be carried out by the agencies involved.

When district engineers become aware of an unauthorized activity, they issue cease-and-desist orders to stop the activity if it is still in progress and investigate the circumstances involved. The district engineer's evaluation contains an initial determination of whether any significant adverse impacts are occurring that would require expeditious corrective measures to protect life, property, or a significant public resource. Once that determination is made, the district engineer can administratively order remedial measures and make a decision about whether legal action is necessary. For those cases that do not require legal action and for which restoration is not in order, the district engineer will accept applications for "after-the-fact" permits, which must undergo the same public interest review process described for individual permits.

Criminal or civil action may be taken when violations are discovered. If legal action is initiated, an after-the-fact permit application cannot be considered until legal action is completed. Legal action is considered appropriate when violations are willful, repeated, flagrant, or of substantial environmental impact and when it is considered essential to the establishment or maintenance of a viable permit program. The Corps refers cases for prosecution directly to local U.S. attorneys. Persons

Figure 1.1: Application Evaluation Process


Application submitted for Corps permit
Determination made that individual permit required
Application acknowledged
Public Notice prepared and published
Comment period 15-30 days
Public Notice reviewed by federal, state, and local agencies; the Corps; interest groups; and individuals
Public hearing may be held
Consideration of public interest review factors
Permit Issued
Application denied

Source: U.S. Army Corps of Engineers

responsible for violating Section 10 and/or Section 404 permit requirements may be subject to fines and imprisonment.

About 5,000 alleged violations are processed in Corps district offices each year. The approximate breakdown by authority is Section 404, 40 percent; Section 10 of the Rivers and Harbors Appropriation Act, 30 percent; and Section 10/404, 30 percent. Corps district officials have previously estimated that about 80 percent of the reported alleged violations involve unpermitted discharges; the others are for noncompliance with permit conditions.

Objectives, Scope, and Methodology

Because of concern for the protection of wetlands, the Chairman, Subcommittee on Investigations and Oversight, House Committee on Public Works and Transportation, in a letter dated January 22, 1987, requested us to review the Corps' implementation of its responsibilities under Section 404. The Chairman was particularly interested in determining the extent to which the Corps coordinates with federal resource agencies during the permitting process,[3] seeks to identify unpermitted discharges in wetlands and violations of permit conditions, and imposes sanctions against those who failed to obtain required permits or violated permit conditions.

The decentralized nature of the Corps' administration of its regulatory program prevented us from reviewing activities nationally. Therefore, as agreed with the Chairman's office during subsequent meetings, we conducted our review at the following Corps districts: Baltimore, Maryland; Jacksonville, Florida; Omaha, Nebraska; Portland, Oregon; and Vicksburg, Mississippi. These districts vary in terms of the number of permits issued each year, geographic area of coverage, and the presence of different wetlands types.

In conducting our review, we held extensive discussions with Corps and federal and state resource agency staff, reviewed Corps and EPA policies and procedures, and developed overall statistical data. To assess the Corps' performance in issuing and enforcing permits, we selected random samples from three universes. The three samples addressed Corps' Section 404 and Section 10/404 individual permits for fiscal year 1986 (subsequent review showed one Omaha permit was issued in fiscal year

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[3] Although interagency agreements are also required between the Corps and the Departments of Agriculture and Transportation, we were requested to limit our review to the major resource agencies—EPA, FWS, and NMFS.

1985); suspected unpermitted discharges reported or closed during fiscal year 1986; and fiscal year 1986 general permits. A more detailed explanation of our case sampling methodology in the five Corps districts is included as appendix I.

We reviewed our samples of individual permits to determine the extent to which Corps districts were considering resource agency comments during the permit processing procedure and to determine if the Corps was periodically inspecting projects to assure compliance with permit conditions. We interviewed Corps and resource agency officials regarding the extent to which resource agency comments on individual permits, including many in our samples, were considered during the permitting process. We did not attempt to make value judgments about whether agency recommendations were wrongly accepted or rejected by the Corps because of the technical nature of many resource agency comments. We also reviewed samples of general permits in each district to determine the extent of the Corps' monitoring of such permits.

We reviewed our samples of suspected unauthorized activities, which included unpermitted activities and violations of permit conditions, to determine how the Corps became aware of and investigated such activities. Review of these samples also enabled us to follow through on completed cases to determine the conditions under which the Corps imposed legal sanctions against those who conducted unpermitted activities or violated permit conditions. We also contacted U.S. attorney office officials familiar with unauthorized activity cases referred by the five Corps districts to determine whether the Corps was pursuing legal sanctions against violators and adequately documenting cases referred for possible civil or criminal penalties.

The information presented in this report consists, in part, of statistical estimates based on our analysis of the selected samples. The precision specifications of the statistical estimates were developed at the 95-percent confidence level and are shown as the upper and lower bounds of the 95-percent confidence limits. This means that 95 times out of 100, the true universe value of the estimate is covered by the lower and upper bounds of the confidence interval. The bounds of the confidence intervals are shown either in table form or as footnotes to the text.

Our selected samples were also used to develop case examples of permitting activities. These case examples are intended for illustration only. When a result from a district is discussed, in most cases the result is not projectable to the district level, unless otherwise noted.

We conducted our work from February 1987 through December 1987. We did not verify much of the statistical and other information provided by the agencies because backup documentation was not available and regenerating it would be too time-consuming or, in some cases, impossible. We provided a copy of a draft of this report for comment to the Departments of Defense, Commerce, and the Interior and to EPA and have included their comments where appropriate. The complete text of their comments is included in appendixes II through V. Our work was performed in accordance with generally accepted government auditing standards.

Section 404 Program Not Controlling Most Wetlands Losses

Because of the many statutory exemptions and other jurisdictional limits to Section 404 regulatory requirements, permitting and related enforcement actions under Section 404 do not provide the basis for a comprehensive wetlands protection program. As the program is currently structured, the Corps does not regulate most of the activities that result in wetlands losses. For those activities that are regulated, available information suggests some wetlands are being protected. However, neither the Corps, the resource agencies, nor any other group maintains the data necessary to precisely estimate such acreage on a nationwide basis.

While recognizing the significant limits to the program's jurisdiction, resource agencies believe the existing program could better control wetlands losses if, among other things, wetland boundaries were delineated more broadly and greater consideration were given to practicable alternatives to placing dredged and fill materials in wetlands. Corps officials believe that they are acting within the jurisdictional limits established for the Section 404 program.

Limitation on Jurisdiction of Section 404 Program

Many activities resulting in substantial wetlands losses are not regulated by the Corps Section 404 program. Under the program, conversions of wetlands for normal agricultural, silvicultural, or ranching purposes may be specifically exempted from Section 404 permitting requirements. Although, as reported by the Office of Technology Assessment, the definition of what constitutes normal farming, silviculture, and ranching activities can be interpreted in different ways and Section 404(f)(2) precludes the exemption of many wetlands conversions, there is little doubt that such activities have resulted in large and unregulated wetlands losses.[1] In addition, the Corps' regulatory authority extends only to the placement of dredged and fill material in U.S. waters. Activities such as clear-cutting existing forests, ditching that drains wetlands, and certain plowing that does not deposit substantial dredged or fill materials have at times been interpreted by the Corps as not coming under its regulatory purview.

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[1] For further information about the major factors that have contributed to wetlands losses, see Wetlands: Their Use and Regulation (Washington, D.C.: U.S. Congress, Office of Technology Assessment, OTA-O-206, March 1984).

For example, a September 1986, Environmental Management Report prepared by EPA region VII entitled Environmental Action Plan for Rainwater Basin Wetlands Project stated that the Rainwater Basin is in danger of total destruction. It further stated that

> ". . .the nagging problem of destruction by draining continues to haunt any effort in the Basin. Section 404 only grants authority to regulate filling activities. Much of the wetland destruction in Nebraska occurs through draining. Thus, without regulatory authority, all we can do to attempt to stop such activities is to increase public awareness of the value of these wetlands and appeal to landowners to preserve their wetlands."

According to the Corps, the resource agencies, and other analysts, most of the annual wetland losses, which several resource agency officials estimate to be between 300,000 and 500,000 acres, have been a result of conversions of wetlands to agricultural uses. For example, in its 1984 report the Office of Technology Assessment stated that between the mid-1950s and mid-1970s, the vast majority of actual wetland losses—about 80 percent—involved draining and clearing inland wetlands for agricultural purposes.

Data Lacking to Precisely Measure Impact of Section 404 Regulations on Wetlands

While many activities affecting wetlands are beyond the scope of the Section 404 regulatory process, permitting and other program requirements govern a host of developmental activities that can destroy wetlands if they are allowed to proceed unchecked. However, no definitive data are available to measure with precision the impact of the Section 404 regulatory program in terms of wetlands acreage protected or lost. Moreover, permit documents do not always include the information necessary to begin compiling such data. Estimates that have been prepared by the Corps, resource agencies, and other organizations range widely, but all agree that some wetlands have been protected as a result of pre-application meetings with permit applicants, modifications to or withdrawal of permit applications, or denial of permit applications by the Corps.

Estimates From Corps Districts and Resource Agencies Show Some Wetlands Protected

With few exceptions, officials at the Corps districts and the resource agencies we spoke with did not maintain comprehensive information on the number of wetlands acres protected or lost as a result of the Section 404 permitting program. Further, our examination of a sample of permit files confirmed that the permits often do not record the amount of wetlands to be affected by the proposed activity. Data we obtained from the

Corps districts and the local resource agencies differed substantially, but all agreed that the Corps program, although not regulating most wetland losses, is serving to protect some wetlands.

For example, although the Chief of the Regulatory Branch, Vicksburg district, said the district has never attempted to assess program performance on the basis of the number of wetlands acres protected or lost, his staff estimated that for fiscal year 1986, permit applications could have affected about 1,373 acres. Of these, they estimated that 534 acres were protected through denial of permits, and 839 acres were lost or altered as a result of issued permits. According to these officials' estimates, only 10 acres of mitigation were required for these permitted activities. The FWS, in contrast, estimated that Vicksburg district projects, including Corps construction projects, adversely affected about 55,000 acres of wetlands. We discuss reasons for these disparate estimates later in this chapter.

In the Jacksonville district, officials provided statistics showing that in fiscal year 1986, Section 404 permit decisions affected few of the district's estimated 11 million wetlands acres. For the 171 Section 404-related individual permits that involved fill in wetlands, applicants proposed to fill 1,557 wetland acres; the district authorized fill of 1,187 acres. District statistical information showed that these permittees were to create 168 new wetland acres and enhance 3,998 existing acres. These statistics are based on approved permits rather than actual work performed, and they do not include wetland acres affected by the district's general permits.

Of the 104 Section 404-related individual permits that were commented on by the resource agencies dealing with the Omaha district from which we drew our sample, only 10 involved discharge of fill material into wetlands, according to Corps records. We identified two additional permits that involved wetlands during our sample review. We found that individual permits issued under Section 404 in fiscal year 1986 affected less than 1 percent of the district's estimated 6 million acres of wetlands. We identified about 70 acres of wetlands that were lost as a result of individual permits involving wetlands. In 7 of these cases, the district required the permittee to create a combined total of about 52 acres of new wetlands through mitigation measures.

Corps officials from the other two districts we visited talked only in general terms about the effect of the program on wetlands. According to some officials from the Corps and the resource agencies in these districts, it is difficult to measure actual acreage protected or lost as a result of Section 404 program decisions. NMFS has compiled information on estimated wetland impacts resulting from permitted activities on which it has commented. However, because NMFS is primarily concerned with coastal wetlands, the agency may not comment on many applications dealing with inland wetlands. We discuss the NMFS estimates later.

FWS officials in Maryland explained that discussions held among the Corps, applicants, and resource agencies during preliminary stages of the permitting process can reduce the wetland acreage ultimately affected by a project. Any estimate of wetlands acres protected must include acres protected as a result of these pre-permit negoti[illegible] and modification of initial proposals, as well as permit denials and applications that are withdrawn, the officials said.

Furthermore, FWS officials told us that because preliminary discussions in the permitting process are often informal and go undocumented, it is impossible to accurately assess the wetland acreage protected or lost as a result of the program. Some Corps and resource agency officials believe that the mere existence of the program and its requirements for getting approval to fill wetlands deter landowners and developers from proceeding directly with projects involving wetlands prior to considering other alternatives.

Other Estimates

We obtained some information on the Section 404 program's impact on wetlands from the Office of Technology Assessment, NMFS, and EPA that was not restricted to the Corps districts we visited. The information, however, either did not give comprehensive estimates for the effects of the Section 404 program or was based on preliminary study findings.

In its March 1984 study, the Office of Technology Assessment stated that it is difficult to present an accurate picture of the program's effects primarily because very little quantitative information on it has been compiled. Recognizing this caveat, the study used Corps information for 1980 and 1981 to estimate that the acreage protected as a result of the program was probably less than 50,000 acres annually; how much less was uncertain.

For the 7,446 public notices received for comment by NMFS nationwide in calendar year 1986, it estimated that about 111,000 acres of habitat were proposed for alteration by permit applicants. NMFS estimated that ultimately about 17,000 acres were affected by Corps' permitting decisions. The NMFS estimates include effects of Corps Section 10 program decisions.

EPA has recently developed preliminary estimates of the program's impact in one of its regions. In a study entitled Environmental Indicators of Effectiveness From the Environmental Protection Agency, Wetlands Protection Section, Region 10, which is based on EPA evaluations of 2,300 Corps Public Notices from October 1983 to September 1987, EPA estimated that about 200 acres have been protected in Washington, Oregon, and Idaho as a result of the Section 404 permitting requirements. EPA's analysis indicates two trends: (1) a downward trend in net wetland loss from 1984 to 1986 (1987 data indicate an increase in wetland losses, but this is due to unresolved mitigation on a few major projects) and (2) an increase in mitigation acreage in the last 4 years. For 1986, the EPA study identified 211 acres that were affected by the Section 404 program in Oregon. Mitigation totalling 154 acres was required, resulting in a net loss of 57 acres.

Extent of Regulatory Jurisdiction Could Change With Different Interpretations of Regulations and Guidance

While there is little doubt that the Corps program is protecting some wetlands, the Corps and the resource agencies disagree over whether the Corps is using the full range of its authority to protect as much wetlands acreage as it could. The disagreement involves interpretations of several key provisions of regulations and guidance. Included among the areas of disagreement are determinations on how to (1) delineate wetlands boundaries, (2) assess the cumulative impacts of individual permit decisions, and (3) consider alternatives to development in wetlands. Depending on whether these and other provisions are interpreted narrowly or broadly, Section 404's regulatory impact can be decreased or increased and the assessment of Corps districts' performance in implementing the program could change appreciably.

Wetlands Delineation

Section 404 of the Clean Water Act regulates the deposition of dredged and fill materials in "waters of the United States," which include wetlands. Controversy remains, however, over exactly how to establish wetland boundaries in any given area.

The Corps and the resource agencies sometimes delineate wetland boundaries differently, and this can result in wetlands determinations that vary by thousands of acres. This in turn could affect the degree to which the Corps assumes Section 404 program jurisdiction in an area.

This was evidenced by the disparate estimates of wetland impacts prepared by the Corps and FWS in Vicksburg, where the Corps determined that the program allowed the loss of about 800 acres of wetlands in fiscal year 1986, whereas FWS estimated that about 55,000 acres were adversely affected. These figures are not completely comparable because the FWS estimate includes federal construction projects undertaken by the Corps whereas the Corps estimate does not.

This large difference in estimated wetlands impacts can be primarily attributed to the different manner in which the Corps district and FWS field office delineated wetlands that should come under the jurisdiction of the Section 404 program. The current approach to delineating wetlands used by FWS would bring a considerably larger area under the program's jurisdiction, according to the officials we talked to in the Corps and the resource agencies.

For example, the Regulatory Branch Chief in the Vicksburg Corps district agreed that the wetland delineation methodologies of the agencies differ. He pointed out that in a court case the district's method, which primarily focuses on the area's vegetative cover and has been in use during the last 8 years, designated about 20 to 25 percent of a bottomland hardwood site as a wetland. The methods used by EPA and FWS designated about 80 percent of the site as a wetland. According to Corps headquarters officials, EPA has the authority to make wetland boundary determinations under the Section 404 program, but has, for the most part, deferred to the Corps to make such determinations due to a lack of staff. They also said that, generally, the EPA wetland delineations more closely match those done by the Corps than do those done by the FWS.

Both the Corps and the resource agencies agreed that such a large disparity in wetlands boundaries might be found in areas such as the bottomland hardwood area covered by the Vicksburg district, but much smaller variations would likely be observed in other areas of the nation, especially in coastal wetlands. Department of Commerce officials concurred that the Corps and the resource agencies are generally in agreement on the delineation of coastal wetlands. They said that these areas generally receive greater scrutiny for a variety of reasons.

However, according to an EPA official in region VIII, the Corps has been too restrictive in delineating some wetlands in other areas of the nation. For example, in the more arid part of the country where there is a lack of rain in the fall, the Corps might determine that a particular site is not a wetland even though the lack of water is temporary. The EPA official believes areas should be classified as wetlands in such situations. According to Corps headquarters officials, EPA could designate such areas as wetlands coming under the jurisdiction of the Section 404 program; however, it has not done so.

The following examples, cited by resource agency officials, illustrate how differences in wetlands delineations in an area can result in varying jurisdictional boundaries for the Section 404 program:

- In fiscal year 1985, a Louisiana agriculture company applied for a permit to clear and convert about 1,300 acres of bottomland hardwood to agricultural use. The Vicksburg district designated 80 of these acres as wetlands subject to Section 404 requirements. The FWS in Vicksburg concluded that all 1,300 acres were bottomland hardwood wetlands and recommended permit denial. The applicant agreed not to clear the acres designated as wetlands by the Corps and was informed that no permit was needed. FWS officials point out that, as a result, the approximately 1,220 acres outside the wetland jurisdictional limits set by the Corps were cleared and eventually lost.
- In the Omaha Corps district, EPA questioned the Corps' failure to assert Section 404 jurisdiction in a case involving unpermitted activities in an area that the Corps considered irrigated land, but which EPA considered a wetland. The Corps did not take any action since it took the position that the area in question was outside Section 404 jurisdiction. However, EPA asserted its authority to make jurisdictional decisions and issued an administrative order to halt the unpermitted activity.

According to Corps and EPA headquarters officials, the two agencies are independently field testing delineation methodologies for use in delineating areas as wetlands and therefore potentially under the jurisdiction of the Section 404 program. Neither agency had completed field testing at the conclusion of our fieldwork. In commenting on a draft of this report, the Department of the Interior stated that the federal resource agencies should continue to work together toward developing a consistent methodology for delineating an area as a wetland for purposes of determining jurisdiction under the Section 404 program. The methodology should be scientifically defensible and reflect the goals of the Clean Water Act, according to the Department.

Practicable Alternatives

Under the 404(b)(1) Guidelines prepared by EPA in consultation with the Corps, no permit for discharge of dredged or fill material can be issued if there are practicable alternatives to the project as proposed that would be less environmentally damaging. The Guidelines further require that no discharge should be permitted unless appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem. To be considered "practicable," an alternative must be feasible in terms of the cost, existing technology, and logistics considered in light of the overall project purposes. Under the Guidelines, alternative project sites not presently owned by an applicant but which could reasonably be obtained, utilized, expanded, or managed may be considered to be practicable alternatives. According to Corps guidance, the discussion of practicable alternatives should be guided by the rule of reason and should consider alternatives in terms of both the applicant's wishes and capabilities and the need for or purpose to be served by the proposed activity.

The resource agencies believe that the 404 (b)(1) Guidelines provide an environmental basis for permit denial, and they have disagreed with the Corps on the extent to and manner in which alternatives to proposed projects should be considered. For example, the Department of the Interior believes that the Corps should apply the Guidelines as a threshold determination rather than as a lesser weighted component of the public interest determination. The disputes between the Corps and the resource agencies most often concern projects that are not considered water dependent. The Guidelines establish a presumption that practicable, less environmentally damaging alternatives exist for activities that are not dependent on being located on the water's edge to fulfill their basic purpose. For example, a restaurant does not have to be sited on the waterfront to fulfill its basic purpose of feeding people, while a marina must be located at the water's edge to be functional.

Several resource agency officials told us that the Corps has been relying on permit applicants to determine whether practicable alternatives to their proposals are available. The Corps or an independent authority needs to verify project purpose as stated by applicants if wetlands loss is to be reduced, according to the Department of Commerce. FWS headquarters officials cited a letter dated March 26, 1986, in which the Lower Mississippi Valley Division of the Corps made the following observations in commenting on a permit application:

> "I call your attention to the requirement that in order for an alternative to fulfill the 'practicable' requirement, it must fulfill the 'basic purpose' of the applicant. . . Whatever information is offered by [the applicant] should be accepted as his basic purpose, since he is the only authoritative source for that information."

The Regulatory Branch Chief, Vicksburg district, acknowledged that the effect of this policy is to rarely deny a permit on the basis of the practicable alternatives test because applicants can easily state their purpose in a way that circumvents the analysis. He explained, however, that the district issues or denies permits based on a full evaluation of a project and not just on whether the project's stated purpose complies with the 404(b)(1) Guidelines.

In a May 26, 1987, memo to the EPA Office of Wetlands Protection, EPA region VI staff commented on this problem, saying

> "In our experience for the majority of cases we have seen, the Corps practice is to issue permits for whatever the applicant wants with very little consideration given to the 'tests' within the Guidelines that address prohibition and alternatives, or EPA stated concerns."

Examples of district-approved projects that EPA region VI officials took exception with because they did not meet the practicable alternatives test included the deposition of rock, concrete, asphalt, and other materials in wetlands to create commercial property and the deposition of fill in wetlands associated with the construction of lakefront residential and recreational developments.

According to EPA officials in region VIII, the Corps and EPA differ on the meaning of basic project purpose and the manner in which practicable alternatives should be considered. EPA looks at project purpose in a broad sense, which provides more project alternatives, whereas the Corps' more narrow viewpoint provides fewer alternatives to proposed projects. The EPA officials view practicable alternatives from an environmental standpoint even when such alternatives are more costly to the applicants, whereas the Corps places more emphasis on the economic impact from the applicant's standpoint, EPA officials said.

In commenting on a draft of this report, the Department of Commerce told us that the Corps' emphasis on economic impact often overlooks the long-term economic contributions of habitat to the commercial and recreational fishing industry. According to a FWS field office official in Pierre, South Dakota, FWS considers any alternative that avoids adverse environmental impacts to be a practicable alternative, whereas the Corps considers an alternative to be practicable only if it seems reasonable from the applicant's standpoint.

The Department of the Interior, in its comments on a draft of this report, told us that rather than insist on compliance with the 404(b)(1) Guidelines as a threshold determination prior to permit issuance, the Corps makes a "public or economic interest determination," which is authorized by 33 C.F.R. 323. Thus, the goal of the Clean Water Act to restore and maintain the nation's water quality becomes involved in a variety of other considerations. The Guidelines specifically prohibit discharges that will cause or contribute to significant degradation of the waters of the United States. In order to meet the goal of the Clean Water Act, the FWS supports a goal of "no net loss" of valuable wetland habitat.

Corps headquarters officials advised us that the Corps relies on applicants to provide information on the purpose of their proposal and alternatives considered, but not to make the determinations regarding whether practicable alternatives to their proposals are available. The Corps carefully considers the effects of an applicant's proposal, taking into account the verifiability and credibility of any information supplied by the applicant. In commenting on a draft of this report, the Department of Defense stated that while the Corps continues to base the denial of some permit applications on the availability of less environmentally damaging practicable alternatives, it is not reasonable to take a stance that would result in a denial of all non-water-dependent Section 404 applications on the basis of the lack of proof that no practicable alternatives exist.

According to Corps district officials, they must consider many variables during each individual permit review, including economic as well as environmental aspects of a project. This can result in conflicts with resource agency points of view, the officials said.

Cumulative Impacts

According to the Section 404(b)(1) Guidelines, cumulative impacts are changes that take place in aquatic ecosystems (including wetlands) that are attributable to the collective effect of a number of individual discharges of dredged or fill material. These effects are to be predicted to the extent reasonable and practical. The Corps and resource agency officials we spoke to generally agreed that cumulative impacts have not been adequately addressed because they are not sure how to establish the criteria to be considered. Instead, they said, it is easier to consider each project individually.

According to the Corps' Regulatory Guidance Letter No. 84-9, the geographic size of the area in which cumulative impacts are to be considered should be established by the district engineer. Within this selected area, a history of permitting activity should be developed, along with anticipated future activities in the area. This will provide the decisionmaker with some sense of the rate of development in the area.

According to some resource agency officials, however, even when they make their specific concerns about the cumulative impacts of permit decisions known to the Corps, the Corps districts may issue permits that ultimately destroy more wetlands. For example, on a fiscal year 1985 application to clear-cut and convert 12 acres of wetlands to agricultural use, EPA recommended that the Corps deny the permit because relatively few areas of bottomland hardwoods remain in the Lower Mississippi Valley. These areas provide functions important to the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Therefore, the loss of additional areas of bottomland hardwoods contributes to the adverse cumulative effect on the overall system.

The district's statement of findings for this project included the following statement:

> "This work will convert 12 acres of wetlands into agricultural production. Several tracts of land in this vicinity are in agricultural production. There will be a reduction in water quality functions in this area; however, the impacts will not be significant."

In commenting on a draft of this report, Corps officials told us that an estimated 11 million acres of bottomland hardwoods remain in the Lower Mississippi Valley.

The Department of Defense, in commenting on a draft of this report, agreed that determining the threshold for denial of future permits in an area is the subject of much controversy and speculation. The Department noted that while it is correct to say the Corps may issue permits that allow the destruction of wetlands in areas that the resource agencies would like to protect, it must also be recognized that the Corps denies permits in areas the agencies want to see protected and places conditions in permits or denies permits to respond to concerns about cumulative impacts. The evaluation of permit applications must be made taking into account many factors in the public interest. The Department pointed out that the Corps must not adopt a narrow view that all wetlands must be equally protected without consideration of their value or the lack of value and without consideration of public and private needs. No exact methodology exists concerning cumulative impact assessment; however, Corps resource professionals exercise judgment in a credible manner, according to the Department of Defense.

The Department of Commerce advised us that even if the Corps had the capability to assess cumulative impacts, not all Corps districts are able to determine how many or which projects are within a given geographic area because of incomplete record keeping and inconsistent designation of waterways. In particular, this problem has been noted in the National Oceanic and Atmospheric Administration's Alaska region and resulted in permit tracking difficulties.

The Department of the Interior said that a key problem with the Corps' approach to cumulative impact assessment and management appears to be the absence of resource goals for its program so that comparisons of resource trends and status can be made. The public interest review that the Corps conducts generally does not reflect any goal to restore and maintain the nation's water resources, according to the Interior Department.

The following observations were made by Corps and resource agency officials we spoke to concerning the limited consideration of cumulative impacts in Section 404 permit decisions. These officials almost unanimously agreed that there were problems in assessing cumulative impacts.

Baltimore District

According to officials in the Baltimore district, no state-of-the-art process for determining cumulative impacts exists, and no thresholds have been established to indicate when to stop issuing permits in a specific area. While conducting cumulative impact studies could be helpful, it might prolong the permitting process by 2 to 3 years for major projects, the officials said.

Resource agency officials that work with the Baltimore district agree that cumulative impacts of projects are generally not considered. Some officials were particularly concerned about projects authorized under nationwide permits. Once such permits are approved, the resource agencies do not get the opportunity to comment, although they believe the projects authorized under the permits could result in significant loss of wetlands over time.

Jacksonville District

Jacksonville district officials concurred that assessing cumulative impacts of projects can present problems. The considerations that affect Corps decisions concerning cumulative impacts include problems with trying to project future events in given wetlands areas, restrictions that might be placed on development by other agencies, and the availability of alternatives. A case from our sample illustrates some of the problems encountered in trying to assess cumulative impacts of individual permit decisions.

An applicant proposed to fill wetlands to construct an access road to a planned commercial and residential complex. The road, however, would provide access to only a portion of a much larger planned development. The Jacksonville district, therefore, initially considered the application incomplete because the applicant did not request permits for the entire project.

The applicant responded by deleting a portion of the wetland fill, and the district issued a public notice. In response to the notice, both EPA and FWS recommended that the district deny the permit until the applicant submitted plans for the total project. The applicant responded by stating that an agreement with the state of Florida limited development to the requested access area and that it was premature to determine what future development would be allowed at the site.

After evaluating the comments, the district issued a permit for this non-water-dependent project because no practicable alternative existed that satisfied the applicant's basic purpose. Further, since at the time the state had approved development in only a portion of the area, the district considered the proposed project complete.

Omaha District

According to FWS officials in Pierre, South Dakota, and Grand Island, Nebraska, the Corps has not, in the past, given adequate consideration to the documentation of potential cumulative impacts. Specifically, over 300 projects have been permitted on the Platte River and its adjacent wetlands since 1977, the Grand Island official said. Because there are up to five endangered species on the Platte River, she said, all proposed projects should be assessed by the Corps both individually and cumulatively.

Corps district officials agreed on the need to conduct such studies in this area. The Corps initiated a study of the Platte River in August 1987. The study is scheduled for completion in 1990, at which time its data will be used in (1) making permitting decisions in that area, (2) addressing environmental concerns relating to existing and future conditions on the river, and (3) developing guidelines for Section 10/404 permit actions.

Portland District

According to officials from EPA and NMFS who work with the Portland district, cumulative impacts are a neglected aspect of the permitting process; however, they also told us that permit actions in the district have not involved significant wetland acreage. A NMFS official, while acknowledging the difficulty of the process, stated that, to date, no one involved with the Section 404 program has considered or has documented the potential cumulative impacts of projects. A FWS official who deals with the district stated that the Corps should be responsible for determining cumulative impacts and that FWS has done little in this area, primarily because of staffing limitations. The district does not have the resources to address the issue of cumulative impacts, according to the Chief of the district Regulatory Branch. He said, however, that efforts are being made to improve cumulative impact assessments through the use of a microcomputer management program.

Vicksburg District

The Regulatory Branch Chief for the Corps Vicksburg district acknowledged that while the district is required to consider cumulative impacts of each proposed permit, it has no data or specific basis for the assessment of cumulative impacts. The official noted that the district staff do not know what effects are to be considered or the extent of the impact to consider in making such an analysis.

Conclusions

The Section 404 permit program is protecting some wetlands. However, many activities, such as normal farming and ranching and the ditching and draining of wetlands, are not regulated under Section 404. These activities result in most wetlands losses each year. Although there is general agreement that many activities that result in wetlands losses are not regulated under Section 404, there is little agreement between the Corps and the resource agencies concerning whether the current program should protect more of the nation's wetlands. Resource agencies believe, among other things, that more wetlands could be protected if the Corps delineated wetland boundaries more broadly and gave greater consideration to practicable alternatives to placing dredged and fill materials in wetlands.

Quantitative information measuring how effective the Section 404 program has been in protecting wetlands is scarce. Some officials we spoke to believe it would be extremely difficult to develop accurate estimates in this regard. Also, there are disagreements between the Corps and the resource agencies or problems regarding the implementation of certain key elements in the administration of the Clean Water Act Section 404 program as it relates to protecting wetlands. For example, the Corps and the resource agencies either disagree or have problems concerning (1) the manner in which wetland delineations are made, (2) the extent to which practicable alternatives to proposed projects are considered, and (3) how to address the cumulative impacts of proposed projects.

Matter for Consideration by the Congress

There are significant differences in the manner in which the Corps and the resource agencies would implement the Section 404 program. For example, fundamental differences or problems were noted in the manner in which the Corps and the resource agencies delineated wetlands coming under the program's jurisdiction, considered alternatives to filling wetlands, and assessed the cumulative impacts of numerous permit decisions. These differences appear to be affecting the degree to which the nation's wetlands are protected, and they are unlikely to be fully resolved among these agencies.

Therefore, the Congress may wish to establish clearer criteria regarding the (1) scope of wetlands delineation under the program, (2) extent to which alternatives to filling wetlands must be considered, and (3) extent and circumstances under which cumulative impacts of permit decisions must be considered.

Recommendations to the Secretary of the Army

In order to provide the Congress and others with information on the effects of the Section 404 program for restoring and maintaining the integrity of the nation's waters and to provide for more consistent management of the program, we recommend that the Secretary of the Army direct the Chief, Corps of Engineers, to take the following actions:

- Develop a data reporting mechanism that will enable the Corps to provide baseline information on the extent to which the granting of Section 404 permits is protecting or resulting in the filling of wetlands and otherwise restoring and maintaining the integrity of the nation's waters.

- Work with the resource agencies to develop consistent definitions and procedures for implementing basic program requirements such as considering practicable alternatives, assessing cumulative impacts, and making wetland delineations.

Agency Comments and Our Evaluation

The Department of Defense does not believe that a study to provide a baseline assessment of the Section 404 program's performance in wetland protection/use and maintaining water quality can be done on a realistic or cost-effective basis. According to the Department, such a study would have to take into consideration a wide variety of factors that are difficult to describe and quantify, much less measure. For example, according to the Department, the very existence of the program may produce wetland preservation that cannot be measured. This could occur when the Corps' denial of permits in one area results in the development community's not applying for permits for similar projects at other locations.

To report only the acreage affected by denied permits would be misleading, according to the Department. While the acreage of wetlands filled under individual permits could be measured, the Department said that this too would be misleading because most permits result in secondary impacts that can enhance, create, harm, or destroy other wetland acreage.

The Department of Defense said that the Corps regulatory staff is at the minimum necessary to accomplish its current mission and is in fact struggling in the face of an increasing work load. To charge that program with an increased mission for monitoring the program's impacts is an unrealistic expectation, according to the Department. The Department attributed part of the problem to the Congress' recent decision not to allow the Corps' regulatory program budget to be augmented by funds from other Corps sources. Finally, the Department believes that the return for dollars spent to develop and operate such a monitoring program would be minimal.

We agree with the Department of Defense that some factors affecting wetland protection would be difficult or impossible to describe and quantify. However, we do not believe that the current monitoring effort provides sufficient oversight of program performance. Although the Department commented that a study would be needed prior to initiating a Section 404 program monitoring effort and that our recommendation could not be accomplished with the resources available to the Corps' regulatory program, we do not believe that reporting the type of baseline information we envisioned when we made our recommendation would be a major undertaking for many Corps districts. For example, we noted during our review that certain Corps districts were able to provide information on wetland acres protected or lost as a result of their permitting actions and on required mitigation actions. We also reviewed district statements of findings on permit applications that addressed the water quality impacts of the proposed projects. We discuss some of these projects in this report.

The Department of Defense's contention, that it could be misleading to report only on the more directly observable impacts of the program, such as wetlands filled under individual permits, is true to some extent. However, we believe that if the information is properly explained and qualified, it would provide more meaningful program performance information than the information currently available and that the major impacts of the program would be included. For example, the Corps historically has denied only about 3 to 4 percent of the permit applications it receives; therefore, it does not appear that the denial of permits in an area would necessarily have a significant effect on attempts to proceed with similar projects at other locations.

We also note that the Department of Commerce, in agreeing with our recommendations, suggested the need to develop a data base to track the effect of the Section 404 program on conserving wetlands that accurately documents the amount and type of acreage converted and conserved under the program. The Department suggested the need to monitor (1) acreage discussed at the pre-project level, (2) acreage proposed in the public notice, (3) acreage recommended by federal and state resource agencies, and (4) acreage authorized for modification. The Department advised that the National Oceanic and Atmospheric Administration tracks public notices using a standard habitat classification scheme. The Department believes the Corps would have a compatible data base if it adopted appropriate components of this classification scheme. We believe that the documentation requirements suggested by the Department of Commerce have merit and should be considered by the Corps.

Concerning our second recommendation, the Department of Defense agreed that the Corps and federal resource agencies should work together to develop consistent definitions and procedures for implementing basic program requirements and added that headquarters staff of the agencies are meeting periodically to discuss current issues and program initiatives. Within the next 3 months, a meeting will be held to jointly decide what can be done to better address the issues highlighted by the report, according to the Department.

EPA stated that the effort to clarify definitions and procedures for implementing Section 404 should include mitigation and the definition of fill material. Both EPA and the Department of the Interior expressed concern that the Corps was not requiring the use of the mitigation techniques that result in the greatest protection of wetland resources, and EPA was concerned that the Corps' definition of "fill material" is too narrow.

The text of the agencies' comments, and additional GAO responses, are included in appendixes II through V.

Chapter 3

Corps Districts Consider but Often Do Not Implement Resource Agency Recommendations

Our review of five Corps districts' policies for involving resource agencies in the pre-permit application process indicates that, even though these procedures vary by district, the Corps is generally receiving and considering resource agency views during the Section 404 permitting process. However, during its public interest reviews, the Corps is frequently not accepting the suggestions offered by the resource agencies in making its final permitting judgments. We estimate that the Corps issued permits over the denial recommendations of resource agencies in 37 percent of the estimated 111 cases involving denials. Corps district acceptance of other recommendations of resource agencies ranged from 58 percent to 100 percent, with a weighted average of 80 percent.

Resource agency field office officials seldom used authorized procedures for appealing decisions of district engineers when they disagreed with their disposition of the resource agency recommendations. The consensus among the resource agency field office officials was that the appeal process was too time-consuming and it rarely resulted in overruling district engineer determinations.

Pre-Permit Coordination Varies by Corps District

Corps regulations require district engineers to establish local procedures that allow potential applicants to consult with Corps regulatory personnel on proposed projects. After receiving a potential applicant's consultation request, the district is to involve federal and state resource agencies in assessing the proposed project and the viable alternatives. The resource agencies may become involved in the permitting process at various stages, including prior to formal submission of applications and at other points leading up to and including the public notice comment period. The resource agencies we visited generally looked favorably on the concept of pre-permit consultations, but some agencies were concerned about the quality of information provided by the Corps districts in public notices and during the pre-permit consultation period.

Scheduling of Pre-Permit Consultations Varies by Corps District

As discussed below, Corps districts we visited varied in the extent to which they involved resource agencies in pre-permit consultations, and the resource agencies differed in their assessments of the Corps districts' means of involving them in the early stages of permit consideration. Corps headquarters officials advised that the variations in pre-permit consultation procedures are not surprising because its districts are allowed considerable freedom in aligning resources to meet mission requirements.

Baltimore District

The Corps' Baltimore district holds bimonthly meetings at which time permit applications can be discussed. At these meetings, the Corps and the resource agencies discuss proposed projects' potential economic and environmental impacts. According to resource agency officials, one of the benefits associated with such meetings is that major concerns, such as reducing the scope of a project, can be resolved prior to the "formal" application process. Reducing the scope of a project can sometimes be an effective way to limit the loss of wetlands.

FWS and NMFS officials dealing with the Baltimore district expressed concern, however, that the bimonthly meetings are not being used to their full potential. NMFS staff have been experiencing difficulty in getting projects of interest to them included in the meeting agendas, they said. Although staff have made these concerns known to the Corps Baltimore district, they remain unaddressed, staff members said.

Jacksonville District

Although the Jacksonville district does not hold numerous pre-application meetings, it does conduct what it refers to as interagency meetings with federal and state resource agency representatives, and on some occasions with individual applicants, approximately every 6 weeks. These meetings are held to discuss current Corps permitting policies and selected individual applications as well as pre-application proposals as requested by potential applicants. At one time, the district was trying to hold regular pre-public notice conferences (on-site and involving the agencies) on projects that required dredging of more than 50,000 cubic yards or filling of more than 2 acres. According to district officials, about 2 percent of proposed projects would meet these criteria. Although a permit application would already have been received by the district at the time of these conferences, they are intended to resolve potential conflicts. However, limitations on manpower and travel have reduced the number of these conferences to an absolute minimum.

According to NMFS officials, the district interagency meetings are ineffective in addressing their concerns on proposed projects. Prior to the Corps' regulatory reform emphasis in 1982, the district coordinated more frequently with resource agencies through pre-application and interagency meetings, the officials said. Since that time, however, the district has emphasized service to applicants and faster issuance of permits rather than resource agency coordination, they said. FWS officials said the meetings occur after they have already submitted their comments on proposed projects.

Omaha District

The Omaha Corps district does not hold regular pre-application meetings during the course of normal permitting activity. Pre-application meetings are usually held on an exception basis, such as for larger projects or projects where significant issues or problems are anticipated. According to EPA and FWS officials, if the Corps district anticipates problems, it will have applicants contact the resource agencies involved so that potential problems can be addressed early. NMFS officials believe that such an approach would be beneficial if it were used nationwide. Corps officials agreed that such early contact with the applicant speeds the permit application process. In the Omaha district, distances to project sites prevent the joint pre-application consultations from taking place more regularly, Corps officials said.

Portland District

The Portland Corps district, federal resource agencies, and state agencies such as the Oregon Division of State Lands, the Oregon Department of Fish and Wildlife, and the Oregon Department of Environmental Quality attend monthly meetings. The meetings are sponsored by the Corps and the Oregon Division of State Lands, and they take turns scheduling the agenda. The meetings are not intended to result in individual permit decisions, but are to discuss projects and provide the resource agencies the opportunity to suggest ways to strengthen the applications and reduce adverse impacts. These meetings result in a faster application process and fewer permit denials, according to several of these agencies' representatives.

Vicksburg District

According to the Regulatory Branch Chief in the Vicksburg district, pre-application matters are generally addressed in informal meetings or over the telephone. He estimates that only three or four pre-application meetings involving the applicant and other agency representatives are held annually. Generally, meetings are held only on an as-needed basis for large projects. Starting in September 1986, however, the Vicksburg district began conducting quarterly enforcement meetings with state and federal resource agency staff. These meetings address a broad range of Section 404 matters of current interest, including enforcement problems, changes in Corps policies, and permit processing.

An FWS official dealing with the Vicksburg district told us that pre-application meetings, when held, are extremely helpful to all of the agencies involved. However, the meetings are held infrequently and only when large projects are involved, he said.

Resource Agencies Question the Accuracy of Public Notices

The Corps uses public notices as the primary means of advising interested parties and soliciting their comments on proposed permit activity. Corps regulations require the public notices to include information sufficient to give a clear understanding of the proposed activity in order to generate meaningful comments. A typical public notice includes (1) the applicant's name and address; (2) the location of the proposed project; (3) a brief description of the proposed activity, its purpose, and intended use; and (4) a plan and elevation drawing showing the general and specific site location relative to the affected waterway or wetland area.

According to some resource agency officials, public notices sometimes contain inaccurate information, such as the wrong project location, or insufficient information on project scope. The following comments by Corps and resource agency officials in the Baltimore, Jacksonville, and Vicksburg districts' areas of coverage describe some of the problems encountered with public notices.

FWS officials in Annapolis, Maryland, said that in some cases incomplete or illegible information has prevented them from locating sites or knowing what work was being proposed. EPA region VI staff who interact with the Vicksburg district told us that their ability to respond meaningfully to permit applications is frequently limited by insufficient information regarding the scope of proposed projects in the Corps' public notice information. The EPA staff estimated that on about one-half of the public notice packages, they must spend resources to clarify information provided by the Corps. Besides the Vicksburg district, region VI staff must coordinate work with seven other Corps districts. Because of staff shortages and limited travel funds, the staff can make few site visits to verify project information. In the 10 months ending July 30, 1987, EPA staff made only six site visits. Therefore, they must rely on the accuracy of public notices and supplemental information.

The Chief of the Regulatory Division's Permits Branch in Jacksonville acknowledged that in some instances its public notices may contain inaccurate information. According to the Chief, this is because they use unverified data submitted by applicants when the district does not have sufficient personnel to verify the applicants' information. When the Jacksonville district uses unverified data, however, it states so in the public notice. NMFS officials believe that this practice should be adopted nationwide so that reviewers would know which proposals may require additional scrutiny.

Corps Districts Vary in Their Acceptance of Resource Agency Recommendations

The Corps' public interest review includes consideration of resource agency recommendations on the proposed projects. Resource agencies' comments may range from no major concerns with proposed projects to recommendations for permit denial. In most cases, the resource agencies do not have major concerns with proposed projects and do not object to permit issuance; however, they may sometimes object to issuing permits for proposed projects.

On the basis of our sample results, we estimate that the resource agencies made 111 initial permit denial recommendations for the estimated 1,419 applications on which they commented. We estimate that the five Corps districts we visited issued permits over these denial recommendations in 37 percent of these cases. The districts varied in the extent to which they required project modifications based on the resource agencies' other recommendations.

Resource Agencies Do Not Object to the Majority of Permit Applications

In the majority of permit application cases, the resource agencies either do not object to or do not comment on proposed projects. For example, in the Jacksonville district, from a random sample of 114 fiscal year 1986 permit applications, we estimate that for 62 percent of the applications,[1] none of the 3 federal resource agencies we visited objected to or commented on the applications. In some cases, the resource agencies do not formally comment on proposals because of a lack of resources, they said. In such cases they make in-house judgments based on prior knowledge of the areas involved and the type of projects, and they conclude that the projects are unlikely to have major environmental impacts.

Information concerning the other Corps districts we visited also indicated that in the majority of cases the resource agencies do not make recommendations to deny or modify projects, or they take no action on public notices issued by the Corps. For example, NMFS information for calendar year 1986 showed that NMFS regions made recommendations on about 23 percent of the public notices they received. In some cases where resource agencies commented on permit applications, we were unable to distinguish between formal recommendations that resource agencies felt strongly should be included as permit conditions and suggestions that the resource agencies raised for consideration by the Corps or applicants.

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[1] The lower and upper bounds of the 95-percent confidence interval are 53 percent and 71 percent, respectively.

Some Permits Are Issued Over Resource Agency Denial Recommendations

On the basis of our sample results, the resource agencies made 111 initial denial recommendations.[2] Although the Corps and the resource agencies frequently arrange for applicants to modify their plans so that their projects no longer warrant denial recommendations by resource agencies, we estimate that the Corps districts issued permits over the resource agency denial recommendations in 37 percent of these cases.[3]

Resource agencies usually recommended permit denial when they believed that projects were not water-dependent, less damaging alternatives were available, applicants were not doing all they could to minimize adverse effects to aquatic ecosystems, or mitigation measures to offset projects' harmful effects were inadequate. Sometimes the Corps and the resource agencies differed regarding whether resource agencies' concerns were addressed. In other cases districts did not fully document reasons for issuing permits over the denial recommendations of resource agencies.

Some districts did not provide feedback to resource agencies on how their recommendations were considered. Consequently, we could not document whether the resource agencies were satisfied with the Corps' resolution of these cases.

The Omaha and Portland Corps districts were able to resolve through permit modification or other action the problems that resource agencies noted in initial denial recommendations in all of the sample projects we reviewed. In the Jacksonville district, the resource agencies made a total of 17 denial recommendations on 9 permit applications. The district rejected 8 of the 17 denial recommendations that applied to 4 permits. Resource agency officials told us that since 1982, when the Corps initiated regulatory reform efforts emphasizing permit processing over extensive informal coordination with the resource agencies, the number of permits the district issued over their objections has increased.

In commenting on a draft of this report, the Department of Defense explained that Corps policy allows district engineers to issue permits over the unresolved objections of federal resource agencies if issuance is accomplished in accordance with the memorandums of agreement with those agencies. The agreements provide the agencies the right to request elevation of the project decisions, and the Vicksburg district considers an agency's decision not to appeal disagreements as acceptance of its decisions. However, the resource agencies seldom resort to elevating projects to higher levels when they disagree with district engineers' decisions primarily because they do not believe that the elevation process results in changes to district engineer decisions.

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[2] The lower and upper bounds of the 95-percent confidence interval are 79 and 143, respectively.

[3] The lower and upper bounds of the 95-percent confidence interval are 23 percent and 51 percent, respectively.

In the Baltimore district, some project case summaries stated that no adverse comments had been received on our sample permit applications even though resource agency comment letters expressed concerns about proceeding with the projects. According to Corps officials, in situations where agencies' recommendations are not discussed in the case summaries, the file should include separate documentation that explains how the resource agencies' concerns were resolved. However, they could not provide us with such information for the sample projects we questioned.

The following cases illustrate the types of problems, such as approval of non-water-dependent projects and lack of consideration of alternatives to work in wetlands, which resource agencies had with some proposed projects for which the Corps districts granted permits.

- In a Jacksonville district case, an applicant proposed to build a shopping center in a wetland area with mitigation to offset losses. EPA, FWS, and NMFS recommended denial because the project was not water-dependent and the proposed mitigation was inadequate. In response to the resource agencies' comments, the applicant proposed to decrease the wetland fill area and perform additional mitigation off-site. On the basis of these plans, the district decided to issue the permit, stating that the mitigation offset the wetlands loss. The resource agencies, however, continued to object to the project for the same reasons. EPA did not appeal this district decision because EPA staff did not follow certain technical requirements concerning the circumstances under which the elevation authority can be used. FWS did not elevate the decision because it believed that the Corps intended to issue the permit despite resource agency protests, so it worked with the applicant to develop a satisfactory mitigation plan. The case file did not document reasons for NMFS' not elevating this decision.
- In a Baltimore sample case, an applicant proposed to fill a wetland to elevate the property to the level of adjacent roadways. A state and a federal resource agency recommended denial of the permit because they believed that the project did not comply with EPA's 404(b)(1) Guidelines, the project would have adverse cumulative impacts, and the public notice did not adequately justify the project. The permit file, however,

did not include documentation as to how the agencies' denial recommendations were addressed by the Corps, and district officials could not provide additional information.

- A Vicksburg district case involved an FWS-recommended denial of an application to construct a dam in a wetland. FWS objected to issuance of a permit because the proposed project was not in compliance with the 404(b)(1) Guidelines, less damaging alternatives were available, all appropriate measures to minimize impacts were not included, and the project would result in significant and cumulative degradation of the aquatic ecosystem.

Despite this view the Corps approved the permit. The rationale for not denying the permit was not explained in the summary of findings. The Corps rejected other alternatives because they would increase turbidity during maintenance dredging, result in increased expense and environmental damage, or cause undesirable cumulative effects. Also, the Corps realized that the applicant could selectively clear the wetland and remove silt deposits regardless of whether a permit was issued for the dam construction. The district acknowledged that the loss of the wetlands would result in a slight lessening of water quality in the downstream aquatic environment.

Few Overall Statistics Available on District Acceptance of Agency Recommendations

Except for NMFS, the Corps and the resource agencies we visited do not accumulate verifiable data on the extent to which Corps districts are adopting resource agency recommendations. NMFS data for calendar year 1986 show that Corps districts adopted major recommendations in 85 percent of the 432 permits issued on which NMFS commented. According to most other resource agency officials, they do not have the staff to conduct such studies or to conduct follow-up on whether their recommendations have been incorporated in the permits. Also, they said many Corps districts do not provide them with sufficient information, such as copies of issued permits, to determine if their recommendations have been accepted.

In the Portland district, the resource agencies believe that they have a good working relationship with the Corps and that the Corps adequately considers and adopts their recommendations. According to most resource agency supervisors, however, they do not formally follow up on whether all of their conditions have actually been included in permits because they do not have the personnel or funding to do so or they do not receive copies of all Corps-issued permits.

The Jacksonville district does not maintain statistics on the frequency with which it accepted resource agency recommendations on permit applications. However, NMFS studies or analyses covering permit actions from 1981 to 1986 showed that the percentage of recommendations made by NMFS that were totally accepted by the district declined from 69 percent to 16 percent of those actions reviewed. The percentage of recommendations that were not accepted by the Corps rose from 31 percent for the 1981 permit actions to 65 percent for the 1986 actions. NMFS concluded from its analyses that the district is accepting fewer of its recommendations because the agency's memorandum of agreement with the Corps limits NMFS' ability to elevate decisions to higher levels for review when it disagrees with district handling of its recommendations.

Neither the Omaha Corps district nor any of the resource agencies we visited have a districtwide summary of resource agency recommendations and the Corps' actions on those recommendations. At the EPA regional office in Denver, Colorado, staff initiated an effort to track such information at the start of the 1986 fiscal year. However, officials there expressed concern over the accuracy of that data because of record-keeping problems.

An official at the FWS field office in Pierre, South Dakota, had some data on resource agency recommendations and Corps actions. However, the official questioned the accuracy of the data because cases involved "judgment calls." The available data indicated that from fiscal year 1981 to 1986 the Corps accepted 114 (91 percent) of the 125 recommendations on which Corps action could be ascertained.

According to EPA region VIII officials, they have not conducted any studies to determine their success at getting the Corps to implement their recommendations or at gaining applicants' compliance with permit conditions and mitigation requirements. The resource agencies do not always have the funds or personnel to devote to this kind of follow-up effort. Because these agencies lack travel funds, their staff do not visit project sites to see if their recommendations are being followed, one EPA official said.

EPA region VI and FWS officials dealing with the Vicksburg district have not conducted studies to assess the extent to which the district was adopting their recommendations. EPA acknowledged that during the past 8 years, region VI had not provided adequate support for the program. Since the completion of our fieldwork, the Section 404 program has been receiving greater emphasis in the region, according to EPA headquarters officials.

According to an official at FWS headquarters, a study is currently underway to develop a methodology for use by its field offices to follow up on recommendations on permits issued under Section 404. The focus of the study is to track the success of FWS recommendations concerning mitigation in permit areas.

Corps Districts' Acceptance of Permit Modifications Recommended by Resource Agencies in Sample Cases

In addition to denial recommendations, the resource agencies make recommendations that permits be modified or that certain conditions be placed in permits to lessen the adverse environmental effects of the proposed work. These recommendations include relocating bulkheads, mitigation measures, limitations on dredging, and others. The districts we visited varied in the extent to which they required applicants to modify their projects on the basis of resource agency recommendations. Acceptance of such recommendations ranged from about 58 percent to 100 percent, with a weighted average of about 80 percent. Table 3.1 shows the rate at which the Corps accepted recommendations from the resource agencies based on projections from our sample results in the five Corps districts we visited.

Table 3.1: Resource Agency Modification Recommendations Accepted by the Corps

Corps district	Estimated number of modifications recommended[a]		Percent of estimated modifications accepted[a]	
Baltimore	**518**	(433,603)	**62**	(51,74)
Jacksonville	**459**	(382,536)	**58**	(41,74)
Omaha				
Wetlands	**98**	(64,132)	**100**	(65,100)
Other water bodies	**908**	(677,1139)	**100**	(75,100)
Portland	**83**[b]		**89**[b]	
Vicksburg	**211**[b]		**68**[b]	
Total	**2,277**	**(2017,2637)**	**80**	**(68,91)**

[a] The numbers in parentheses represent the lower and upper bounds of a 95 percent confidence interval

[b] The entire universe was examined in Portland and Vicksburg. Thus, there is no sampling variability

It appeared that the Corps districts were generally willing to accept and consequently require permit modifications for changes recommended by resource agencies when the changes concerned their areas of expertise. For example, recommendations by FWS that involved habitat protection were usually accepted by the Corps. Conversely, recommendations dealing with matters such as the shape of bulkheads were often not accepted.

In many of our sample cases, the Corps required applicants to modify their projects to accommodate all of the recommendations made by the resource agencies. For example, in a Jacksonville sample case, an applicant proposed constructing a marina that would result in destroying 3.8 wetland acres. All three resource agencies recommended that the project be modified. The district deactivated the project on three occasions and issued two public notices to allow the applicant to modify the project. The applicant made major modifications and included additional mitigation, thereby quelling the resource agencies' objections. The district issued the permit on the basis of the approved modifications.

Corps officials identified a variety of reasons concerning why in other cases they did not include resource agency recommendations as permit conditions or modifications. These reasons included the following: (1) recommendations already were included in state permits, (2) recommendations were included in transmittal letters to applicants for their consideration because the Corps project managers believed the recommendations were not enforceable; (3) Corps project managers believed that no practicable alternatives were feasible; and (4) some suggestions were based on policy differences between the Corps and the resource agencies—for example, how to consider practicable alternatives or delineate wetland boundaries and the extent to which land clearing should be regulated—that the Corps will not consider in permit decisions. In some cases where resource agencies questioned whether their recommendations were included as permit conditions, the Corps believed the recommendations were included, albeit with slightly different wording.

In commenting on a draft of this report, the Department of Defense acknowledged that with only about 600 project managers it is not always possible for every district to accomplish the degree of coordination, feedback, and record keeping desired by the resource agencies. The Department said that the Corps has very little control over the number of applications it receives each year, but the Corps must evaluate each application in addition to its other duties. Individual applications may range from a simple bank protection fill to a large fill involving complex environmental, socioeconomic, legal, and other issues. Further, the Department believes that the number of more difficult applications is increasing.

Infrequent Use of Elevation and "Veto" Authority

The Corps and the federal resource agencies have negotiated memorandums of agreement that include procedural guidelines under which the resource agencies refer disagreements with district engineers to higher review levels within the Department of the Army. In addition to its elevation authority, EPA can prohibit disposal of dredge or fill material in certain situations, in effect vetoing permit decisions made by the Corps. The resource agencies have used the elevation procedures infrequently even though they sometimes disagreed with district engineers' decisions involving projects affecting large wetlands, as shown by our sample cases. EPA had completed veto action five times nationally, according to EPA headquarters officials.

Resource Agencies Seldom Use Elevation Authority

Among the resource agencies we visited, few appeal disagreements with Corps districts. According to resource agency officials, this is because the elevation procedures are very cumbersome and time-consuming, appeals rarely result in changes to district engineer decisions, their own agencies discourage use of the elevation authority, and most disagreements involve wetlands fills of comparatively small size. For example, an FWS headquarters official told us that since 1985, when the latest memorandum of agreement with the Corps was negotiated, one of the six elevations has resulted in overturning a district engineer's decision. The resource agencies, rather than elevate decisions, often negotiate with the Corps or applicant to arrive at some compromise that modifies the project while allowing the permit to be issued.

Table 3.2 shows the number of times the resource agencies we contacted in the respective Corps districts initiated elevation actions. The elevations include those that reached at least the division engineer level.

Table 3.2: Resource Agency Use of Elevation Authority by Fiscal Year

	Permit elevations initiated				
Corps district	**1986**	**1985**	**1984**	**1983**	**1982**
Baltimore	0	0	0	0	0
Jacksonville	17	9	1	3	14
Omaha	0	0	0	0	0
Portland	1	0	0	0	0
Vicksburg	0	0	0	4	3

Elevating Decisions Can Be Time-Consuming and Cumbersome

The current agreements between the Corps and the resource agencies allow only certain resource agency officials to elevate permit decisions.

According to the agreements, unless one of these designated individuals signs the agency's comment letter, the agency gives up its right to elevate the district's final decision. However, except for FWS, the resource agency officials with signature authority are not usually involved in evaluating and commenting on district public notices. According to memorandums of agreement with the resource agencies, they must comment within the comment period stipulated in the public notice, which means that NMFS and EPA must decide within that period whether their disagreements are significant enough to warrant the involvement of the regional administrator or regional director, the officials with signature authority.

According to many resource agency officials, the elevation process is resource-intensive, and they must ensure that timely actions occur in accordance with memorandums of agreement procedures. Since their personnel must respond to thousands of public notices each year in addition to performing other duties, they elevate only those decisions that have the best chance for reversal and involve significant wetlands or natural resources, the officials said.

The Department of Defense agreed that while the process provided for in the memorandums of agreement is cumbersome and time-consuming, it nonetheless gives the resource agencies a powerful tool to ensure that their interests are given full consideration. The threat of elevation has been an effective tool for the agencies to use in convincing applicants to modify their projects. The Department of Defense contends that the resource agencies do not make more formal use of elevation out of a lack of conviction rather than lack of authority. According to the Department, the development of different mechanisms for resolving differences of opinion will not resolve the basic differences between the Corps and resource agencies because the resource agencies are charged with protecting the resource without consideration of the other factors that comprise the public interest, while the Corps must balance many factors in the public interest in making decisions about permit applications.

District Engineers' Decisions Are Rarely Overturned

According to resource agency officials who interact with several Corps districts, when they have referred cases for review, the higher Corps review levels rarely reverse the district permit decisions. For example, in a Jacksonville district case that was referred by FWS, the Acting Director of Civil Works concluded that the district evaluated and issued the permit using incorrectly developed criteria. The Acting Director required the district to reevaluate its decision using the proper criteria.

The district's reevaluation, however, determined that the project benefits outweighed the detriments to the wetland resources, and the permit was issued over FWS' objections. This was the only case we found for fiscal years 1985 and 1986 that was initially ruled in a resource agency's favor.

During fiscal years 1982 and 1983, Vicksburg FWS officials attempted to appeal seven disagreements with the Vicksburg district. Six of these appeals were rejected by the Corps, although one was later reconsidered. In the seventh case, which involved a disagreement over spacing of oil and gas exploration wells in wetlands within a wildlife management area, the FWS withdrew its appeal.

The Vicksburg district Regulatory Branch Chief explained that the district's decisions are generally not overturned by higher levels because appeals are, for the most part, based on policy differences between the resource agencies and the Corps. In disagreeing with the Corps' policies and practices, FWS believes that the district (1) is reluctant to regulate land clearing activity within wetlands, (2) uses faulty rationale in applying the water dependency practicable alternative test, and (3) places low values on factors such as wildlife habitat in making permit decisions. According to the Regulatory Branch Chief, public input to the permitting process often reflects a misunderstanding of the program's purpose, and the public tries to get activities other than the deposition of dredged and fill material included under the regulatory purview of Section 404.

Most Disagreements Involve Small Wetland Acreage

In our sample permits from the Portland district, only one of the three cases where resource agencies recommended denial was elevated, and only to the Corps division level. EPA did not elevate this case beyond the division level because the Corps assured EPA that it did not view its decision to issue a permit in the case as precedent-setting, and the EPA determined that the case did not involve wetlands of significant acreage. The other two cases were not appealed because the resource agencies initially did not know permits had been issued and the issues involved were not significant enough to pursue.

According to the Chief, Water Resource Assessment Section, EPA region X, the agency has not elevated district decisions because none of the projects has been of sufficient size (over 5 acres) to warrant the effort involved in pursuing a denial. Anytime a threat of elevation is perceived, the Chief of the district's Regulatory Branch calls his counterpart in the resource agency to discuss the issue and work out the problem. This communication often serves to eliminate the problem before the resource agency starts the elevation process and keeps good working relationships between the agencies, according to these officials.

EPA Uses Its Veto Authority Infrequently

In addition to its appeal rights, EPA, under Section 404(c) of the Clean Water Act, has the authority to veto a Corps permit decision and prohibit disposal of dredged or fill material at any site it determines would have unacceptable adverse effects on municipal water supplies, shellfish beds or fishery areas, and wildlife or recreational areas. As with appeals, EPA officials stated that their veto actions require extensive use of limited staff. Consequently, the agency uses this authority only after exhausting all other resolution options.

According to EPA headquarters officials, since passage of the Clean Water Act, the agency has completed veto action in only five cases nationwide; EPA region IV initiated three of the five veto actions. One EPA official stated, however, that because of current difficulties in processing successful elevations, the region will probably use more veto actions in the future to carry out its legislative responsibilities for protecting wetlands.

In commenting on a draft of this report, the Department of Defense stated that the threatened use of Section 404(c) veto authority can be as effective as actually using it. Department officials told us that use of Section 404(c) earlier in the application process would save the Corps and the EPA considerable time spent over disagreements about permit decisions.

Conclusions

The five Corps districts we reviewed used various means to involve resource agencies in the early stages of the permitting process. Generally, it appears that once the resource agencies formally comment on a proposed project, the Corps considers the resource agency recommendations. Because resource agency comments are advisory and the Corps must balance many factors in its public interest reviews, not all resource agency recommendations are adopted in Corps permitting decisions.

As evidenced by some of our sample cases and resource agency officials' comments, not all Corps districts provide the resource agencies with feedback on the reasons for rejecting their recommendations. While we recognize that Corps district engineers must balance comments from many sources during the public comment period and this can result in the rejection of some resource agency recommendations, we believe that some Corps districts could establish more formal feedback procedures to advise resource agencies concerning the rationale behind the issuance of permits that do not include the resource agency recommendations.

Overall, however, the number of major disagreements involving Section 404 permit decisions between the Corps and the resource agencies appears to be small relative to the number of applications it receives, and it appears that the Corps generally accepts resource agency recommendations when the Corps considers them to be within the agencies' area of expertise. However, Corps districts sometimes issue permits even when resource agencies appear to have serious concerns with proposed projects. We estimate that the Corps districts issued permits over the denial recommendations of resource agencies in 37 percent of our sample cases. The Corps gave a variety of reasons for not adopting the resource agency recommendations, including their belief that no practicable alternatives were available to applicants and following Corps policies that may contrast with resource agency policies.

Despite the fact that, in several cases we reviewed, resource agencies believed that the Corps issued permits over their unresolved denial recommendations, the resource agencies rarely used procedures to get higher level review of district decisions. They used this elevation authority rarely because they believe that current formal procedures for resolving disagreements with the districts are ineffective. The agencies point out that elevating disagreements to higher levels for review requires extensive use of their limited staff, and they sometimes cannot get the support of their own agencies in such matters. Furthermore, according to resource agency officials, the procedures are cumbersome, and the higher review levels rarely reverse district permit decisions. In light of the low number of elevations by resource agencies and the general impression on their part that the process is not workable, it appears that the Corps and the resource agencies could establish a process through which differences of opinion concerning permitting decisions can be resolved.

Recommendations to the Secretary of the Army

In order to provide for a more effective public interest review in which environmental and developmental concerns receive full consideration as required by law, we recommend that the Secretary of the Army direct the Chief, Corps of Engineers, to

- work with the resource agencies to develop a feedback mechanism to provide the resource agencies with documentation that shows how their recommendations were addressed during the application review process, and, where applicable, reasons why recommendations were not accepted and
- develop, with the participation of the resource agencies, a mutually acceptable and simplified process under which district engineer permitting decisions can be appealed.

Agency Comments and Our Evaluation

The Department of Defense agreed with our recommendations, noting that feedback mechanisms are already in place and that resource agencies can review Corps permit documentation, including the disposition of agency comments at all district offices, on their own initiative. The Department stated that the Corps recognizes that documentation of and providing the rationale for rejecting comments or suggestions are important and that such issues are often the subject of contention in legal proceedings. The Department believes, however, that sometimes changes in projects that were made as a result of agency comments are not recognized by the agencies. Also, the Department said that to provide the resource agencies with the type of feedback that occurs during elevation actions for all permit actions would add to the already difficult job of project managers.

Although permit documentation is available at Corps districts for resource agency review, we believe that it would facilitate coordination between the Corps and the resource agencies if the Corps routinely provided the agencies with feedback on its handling of their public notice comments. This is especially true in those cases for which the Corps does not adopt the resource agencies' recommendations. Such a procedure could include, as a minimum, providing the agencies with copies of issued permits and the districts' statements of findings that address the Corps' disposition of their comments. As there is already considerable interagency discussion of permit applications and Corps districts generally require the preparation of statements of findings, which include information on the resolution of agency comments, we do not believe that it would add substantially to the work load of project managers to routinely share this information with the resource agencies.

Regarding the current procedure for elevating permit decisions, the Department of Defense stated that as one option the Corps would propose eliminating the formal memorandums of agreement appeal process and substituting a more informal process based on joint agency guidance documents. Other options that could be considered by the Corps and resource agencies include issuance of joint agency guidance on the current memorandums of agreement and/or revisions to those agreements. The Corps has already started a dialogue with the EPA and will approach the other agencies, according to the Department. EPA stated that any modifications to the elevation process must consider the respective roles and authorities of the agencies. We believe that if they can result in a mutually agreeable process for resolving conflicts, that any one of the above approaches would be a step in the right direction and that the dialogue with the resource agencies should continue.

The text of the agencies' comments, and additional GAO responses, are included in appendixes II through V.

Chapter 4

The Corps Does Not Emphasize Monitoring and Enforcement Activities

The Corps districts we visited did not routinely perform surveillance to detect unauthorized activities or inspect all permits to ensure that permittees adhere to permit conditions. Also, some investigations of reported unauthorized activities did not occur for months after they were reported or not at all. Consequently, some unauthorized activities may have gone undetected and adverse effects in wetlands may have occurred. According to district officials, their personnel are primarily involved in permit processing, and monitoring has received a low priority. The Department of Defense contends that the Corps does as much as should be expected with the limited resources available.

In pursuing violators of permit requirements, the Corps rarely used available civil or criminal remedies, preferring instead to rely on administrative procedures to attempt problem resolution. The Corps districts also suspended and/or revoked few permits because permittees did not comply with permit conditions. These policies and practices may have contributed to cases of prolonged noncompliance with permit requirements.

EPA, which has independent enforcement authority for unauthorized and unpermitted activities, also has performed limited surveillance and has used its enforcement authority sparingly. EPA states that current manpower and funding levels affect the extent to which it can participate in the enforcement of Section 404. The other resource agencies we visited are not specifically charged with enforcement authority under the Clean Water Act and do not routinely engage in monitoring or enforcement activities.

Unauthorized Activities May Not Be Detected

Corps regulations authorize district engineers to conduct surveillance to detect unauthorized activity. However, surveillance, including aerial surveillance to detect unauthorized filling of wetlands, is not a high priority in the Corps districts we visited. None of the districts had systematic ways to detect unauthorized activities, opting instead to devote most staff time to permit processing. Some states may have programs that would assume some of this responsibility; however, we did not review state programs, and the Corps and resource agencies we visited did not have extensive information on state program effectiveness. Some district officials admitted that some violations may go undetected, but they were not able to estimate the magnitude of the problem. While the Department of Defense concurred that unauthorized activities may be going undetected, it said that surveillance and pursuit of unauthorized activities are the responsibility of EPA.

Department of Defense and Resource Agency Officials Agree That Surveillance Is a Low-Priority Activity

Corps regulations encourage district engineers to involve Corps employees; other federal, state, and local agencies; and the public in reporting suspected violations. The majority of the unauthorized fills in the districts we visited were reported by Corps officials, individuals, and state or local officials.

According to officials in each of the five Corps districts we visited, surveillance to detect unauthorized activities receives less priority than permit processing in their offices. In many cases, surveillance and monitoring takes place only when it can be combined with some high-priority district activity such as site investigations during permit processing. Although some states appear to have extensive wetland protection programs, we did not assess their effectiveness, and the Corps districts and resource agencies we visited could only provide general information on the extent to which these programs might be monitoring activities occurring in wetlands. In some cases, they disagreed on the effectiveness of state programs. The following comments on surveillance are indicative of those obtained from officials in the five districts.

- The Assistant Chief of the Regulatory Branch, Baltimore district, told us that if staff in the region actively looked for violations, district staff would find "many more cases of unpermitted fills than they would be able to handle." Consequently, surveillance activities are passive within the district.
- According to the Chief of the Jacksonville district's Regulatory Division, those involved in monitoring and enforcement activities spend only about 5 percent of their time on surveillance. As in the other Corps districts, the Chief attributed this to the low priority assigned to surveillance and monitoring in general.
- The Chief of the Regulatory Branch in the Portland district stated that the district does not have the personnel or resources to conduct surveillance. As a result, he said the district responds reactively to public complaints rather than seeking out violations. Also, officials in charge of permitting and enforcement told us that staff are not available to monitor all issued permits nor to investigate all reports of suspected violations.
- Surveillance activities are normally performed by the Omaha district's field office personnel in conjunction with other regulatory duties, according to the Chief of the Enforcement Section. For example, if field personnel need to pre-inspect a potential project site, they will survey the area in the vicinity of the travel route and note any apparent unauthorized activities. While en route, the field personnel will also inspect

any permitted projects in the area that can be readily incorporated into the trip.

- The Chief of the Vicksburg district's Regulatory Branch told us that the biggest problem with the district's Section 404 program is the lack of effective enforcement. This is primarily due to budget limitations that have forced reductions in staff travel for activities such as surveillance and inspections.

The Department of Defense stated that although unauthorized activities may go undetected under current program management arrangements, the Clean Water Act vests the Administrator of EPA with enforcement authority for unauthorized discharges, not the Secretary of the Army, who is empowered to enforce only against permit violations. The Corps has agreed as a matter of comity to use its limited resources as the front line of enforcement for Section 404 since 1976.

Most of the resource agencies we contacted reported few unauthorized fills. This is likely due to the fact that officials of these resource agencies told us that none of them had comprehensive surveillance programs to routinely monitor their respective geographic areas for suspected unauthorized filling in wetlands. Instead, the federal resource agencies report unauthorized activities that they detect while performing their other duties or when they are made aware of them by others.

Aerial Surveillance Not Being Extensively Used

According to Corps district officials, aerial surveillance is more efficient than ground surveillance because it covers more areas in a shorter time frame. This method also gives ready access to remote areas and avoids problems of access to private lands. Aerial surveillance also helps to provide monitoring of an area over a period of time. For example, aerial photographs of an area prior to and after a violation can be compared to show the size, shape, and degree of the violation dramatically, accurately, and effectively. This type of information is an effective tool in supporting and justifying enforcement actions. According to staff in each of the districts we visited, aerial surveillance has been curtailed by budget constraints. The following information was provided by Corps district regulatory officials.

- The Chief Enforcement Officer in the Baltimore district told us that the district has made seven flights in the past three fiscal years, six of which were to inspect specific reported or suspected violations. He told us that he did not anticipate any flights in 1988 due to a lack of funds.

- The Jacksonville district established a goal to conduct aerial surveys districtwide on a quarterly basis. Lack of funding restricted such flights to twice a year in some areas.
- District officials in Omaha said that 13 aerial surveillance flights were made during fiscal year 1986. A $282,000 reduction in the district's regulatory program funding during fiscal year 1987 prompted the elimination of aerial surveillance for that year, according to the Chief of the Regulatory Branch. However, EPA did provide funds for two aerial surveillance flights during the year.
- Portland officials told us that the last aerial investigations in the district occurred in the spring of 1986.
- The Chief of the Regulatory Branch in the Vicksburg district told us that the district has not used aerial surveillance routinely since 1982. According to this official, aerial surveillance generally yields a significant number of minor projects that must be investigated on the ground to determine if violations have occurred. He said the Enforcement Section does not have the resources to devote to such follow-up inspections. However, he did not believe that major projects go undetected because adequate on-the-ground coverage is provided by other Corps personnel, other agency personnel, and the public.

Corps Investigations of Suspected Unauthorized Activities Sometimes Delayed for Long Periods

After unauthorized fills are reported, Corps regulations require that investigations be conducted in a timely manner to confirm whether a violation has occurred and, if so, its extent and the responsible party. Corps district officials should schedule investigations on the basis of the nature and location of the suspected violations, the anticipated impacts, and the most effective use of available resources, according to Corps guidance.

Corps regulations do not define what would be timely investigation of reported unauthorized activity; however, we found that of the 125 suspected cases of unauthorized filling in wetlands that we reviewed, the Corps did not investigate many cases for several weeks or even months after they were reported. Also, we could not determine the timeliness of 34 investigations due to incomplete records maintained in the districts. Twenty-eight of these situations were in the Baltimore and Jacksonville districts. In two districts—Portland and Vicksburg—some reported unauthorized fills were not investigated at all. Table 4.1 shows the number of days it took the Corps to investigate cases for which we could establish the reporting and investigation dates for suspected unauthorized fills. The vast majority of the reported cases involved unpermitted activities, although a few were for noncompliance with permit conditions.

Table 4.1: Timeliness of Corps' Investigation of Reported Suspected Unauthorized Activities

	Number of days for Corps to investigate activity				
Corps district	Unable to determine	0-5 days	6-20 days	21-60 days	Over 60 days
Baltimore	16	4	1	1	3[a]
Jacksonville	12	8	3	2	0
Omaha	2	8	11	2	2
Portland	2	9	10	3	1
Vicksburg	2	3	5	5	10
Total	**34**	**32**	**30**	**13**	**16**

[a] Some indication of prior investigation was present, but actual visit was not documented

The longer it takes to investigate suspected unpermitted activities, the more likely it is that additional filling or unauthorized work will result in the loss of valuable wetlands. Although the wetland acreage affected by unauthorized activities we reviewed was usually small and involved projects such as bulkheads and minor dredging rather than major projects such as marina construction, a few potential violations involved large acreages.

In our sample of 25 cases of unauthorized activities in Omaha, all of which involved wetlands, we were able to identify about 2,000 acres of wetlands that were adversely affected as a result of unpermitted activities. Two projects involved the majority of these wetlands. In contrast, in the Portland district, the extent of the violations ranged from placing 50 to 6,600 cubic yards of fill in a wetland. In only two cases did the Corps specifically state the number of acres involved, and these were 1.4 and 3.6 acres. Based on enforcement file documents or district officials' comments, the following information was obtained concerning why some of the investigations of our sample of suspected unauthorized activities took several weeks or months to complete.

- Vicksburg Regulatory Branch officials explained that their practice is to assign top investigative priority to ongoing violations; however, 7 of the 10 suspected violations that took longer than 60 days to investigate were reported as active violations. Four of these were not investigated for more than 200 days after the enforcement section received the initial report of the suspected violation. In practice, violations within remote areas are accumulated so that a single trip can cover multiple investigations, the officials said.

- According to the Portland district enforcement officer, the district was only able to investigate 62 of approximately several hundred reports of suspected unauthorized activities in fiscal year 1986. Some of the reported unauthorized activities that were not investigated were likely duplicate reports of the same suspected violation or were activities not requiring permits, according to Portland district staff. The enforcement officer told us that the district conducts most of its investigations in the western part of the state along the coast and in the Portland area. He agreed that because the district does not conduct inspections in the eastern part of Oregon, undetected unauthorized discharges may be occurring. The enforcement officer also told us that the one sample case that took over 60 days to investigate received a low priority because the fill had already been completed and it was at a distant location. It was grouped with several other violations for later investigation to save on travel funds and staff time, he said.
- No suspected unauthorized activities reported to the Jacksonville district took more than 60 days to investigate. The case that took the longest (43 days) to investigate was initially observed by the Corps during an aerial investigation that was followed up by a ground site inspection.

In commenting on a draft of this report, the Department of Defense agreed that Corps investigation of suspected unauthorized activities sometimes is delayed for long periods; however, under the Clean Water Act, they said, the mission of the Corps is evaluating applications and enforcing against permit violations. Again they pointed out that EPA has the authority for acting against those who discharge material without a permit.

Limited Involvement of EPA in Enforcing Section 404

The Clean Water Act of 1977 provided EPA with independent enforcement responsibility for unauthorized unpermitted discharges. This authority was strengthened with passage of the Water Quality Act of 1987. The 1987 act authorizes EPA to issue administrative orders imposing corrective conditions and/or monetary penalties against parties who engage in unauthorized unpermitted fill activities. The Corps has similar authority to issue administrative orders for violations of permit conditions. According to EPA and Corps headquarters officials, they are developing a memorandum of agreement defining how their new authority for administrative penalties under the Water Quality Act of 1987 will be implemented.

Our work shows that EPA's involvement in Section 404 enforcement activities covered by our review has been selective and has varied by

EPA region. For example, EPA region VI officials said that the region has had no functioning Section 404 enforcement program over the last 8 years. Therefore, EPA has relied on the Corps and other agencies to carry out surveillance and enforcement. In May 1987, region VI reemphasized its enforcement initiatives, but as yet does not have sufficient staff to do the job within its five-state region, according to region VI officials. As evidence of the new emphasis now being placed on enforcement of Section 404 in the region, EPA headquarters officials told us that region VI issued its first administrative order during the past year and has work in process on several others. EPA headquarters officials, however, indicated that staff and funding levels for the Section 404 program affect the extent to which they can participate in enforcement activities.

According to EPA region III officials, the region is one of the most active in enforcement of the Section 404 program; however, they told us, they have a "gentlemen's agreement" with the Baltimore district that has resulted in the bulk of the enforcement work involving unpermitted fill detection and resolution falling on the Corps. EPA is currently emphasizing advanced identification studies. These studies are attempts to identify specific areas—including wetlands—in advance of permitting decisions that are not likely to be approved as dredge and fill sites. EPA is using the results of the studies to educate the public about wetlands in their regions.

Nationally, EPA regions varied considerably in their issuance of enforcement actions pursuant to Section 404. Although EPA headquarters officials told us that they cannot provide specific information on the number of administrative orders its regions issue, EPA does report on aggregate enforcement actions by the regions. (According to EPA headquarters officials, these numbers would roughly equal the number of administrative orders issued.) For fiscal years 1986 and 1987 combined, EPA regions III and IV had 57 and 33, respectively, of the 194 total EPA enforcement actions for the 2 years. In contrast, region VI had one enforcement action and region VIII had six for the 2 years.

We reviewed recent information that shows that EPA has already utilized its powers under the Water Quality Act of 1987 to impose fines in certain areas of the country. The act authorizes administrative penalties that could reach $125,000 per violation depending on the nature and gravity of the violation. If properly implemented, these provisions could serve as deterrents to violations of Section 404 requirements, especially those involving smaller projects.

According to EPA, another possible means to increase the enforcement presence for the Section 404 program would be to encourage more states to assume those program responsibilities that are allowed by law. They said that final revised regulations setting forth the requirements and procedures for states to take over certain aspects of the program were recently issued. However, it should be noted that incentives, such as administrative funds, may be necessary before many more states would be encouraged to assume this responsibility, according to EPA.

The Corps Does Not Inspect All Permits for Compliance With Conditions

Corps regulations leave inspection of permitted activities for determining compliance with permit terms and conditions to the discretion of Corps district engineers. As table 4.2 shows, the Corps districts we visited do not inspect all permitted sites, and we found that documentation of site visits is sporadic.

Table 4.2: Corps' Compliance Inspections at Sample Sites

Corps district	Sample size	Documented compliance inspections
Baltimore	42	18
Jacksonville	40	0
Omaha	40	26
Portland	43	11
Vicksburg	32	1

Although it appears that some districts we visited conduct very few compliance inspections, the projects included in our review may not have been completed at the time of our fieldwork, and some may not have been started. For some of the sample projects, we were unable to determine when projects were started or completed because some districts did not record such dates. Therefore, some of the projects above may yet receive appropriate compliance inspections. For these reasons we did not attempt to make estimates about the number of projects needing inspections.

According to Corps officials, statistics on site inspections may be misleading because some inspection visits may not be documented. Further, the states and resource agencies may visit sites and advise the Corps of their findings, which may not be documented in Corps files.

The Department of Commerce believes that Corps districts need to do a better job of recording data for each permit, including (1) the date construction started, (2) the date construction was completed, (3) the project priority rating for inspection, and (4) the date and results of site compliance inspection. The officials said that this information is seldom recorded by Corps districts.

The results of our review at the five Corps districts are discussed below.

Baltimore District

Determining whether the Baltimore sites we reviewed were inspected was difficult because project managers did not always maintain records of site visits, the district has no specific procedures for conducting compliance inspections, and no form has to be completed for such inspections. Project managers are required to prepare written documentation for any activity involving a project, but they admitted that this is often not done for compliance inspections. They also told us that, because of time constraints, not all individual projects are inspected for compliance with conditions set forth in permits, and lack of staff prohibits routine monitoring of general permits.

Monitoring efforts are mostly reactive, stemming from a complaint or conflict during the permitting process, project managers said. Some compliance inspections are conducted when the officials visit the permit area for other reasons. Project managers' criteria for determining which sites they visit include the following:

- sites being developed by problem contractors,
- cases that are controversial with the resource agencies,
- large-scale and visible projects,
- projects whose plans have been radically modified, or
- projects about which the district has received complaints.

Jacksonville District

The Jacksonville district infrequently inspects projects to assure compliance with permit conditions either during or after construction. District estimates of the frequency of various branch office regulatory personnel group inspections ranged from 0 to 15 percent during construction and from 0 to 30 percent for projects after completion of construction. The district is developing procedures to follow up on permit conditions to determine compliance, according to district officials.

No follow-up inspections were shown in the 40 individual permit sample cases we reviewed in Jacksonville. In many instances field personnel do not formally document inspection visits, and district policy does not require such reports, district officials said. However, individual inspectors may maintain personal records on inspection results that do not become part of the case record, according to the officials.

An NMFS study of individual permits issued by 7 Corps districts, including the Jacksonville district, for the period 1981 through 1985 showed that in 425 projects that were completed or underway, the applicants complied with conditions in 79.5 percent of the permits. The compliance rate shown for the Jacksonville district was 78.5 percent; however, we did not verify this NMFS information.

Omaha District

At the Omaha Corps district, 26 inspections at the 40 projects we sampled were documented. The 26 inspections occurred on 20 projects. Of the 20 Omaha projects we reviewed that were authorized under regional general permits, 1 received a compliance inspection. Compliance inspections are not done for all permitted projects because of a lack of funds, according to the Chief of the Monitoring and Enforcement Section.

In March 1986, the Omaha Corps district distributed to its field offices written criteria and procedures on conducting compliance inspections. The directive, which was to become effective at the beginning of fiscal year 1987, required compliance inspections on individual permits within 1 year of the date of issuance and upon completion of the project, if applicable. Because the district had not implemented a system to track project status, including start and completion dates, this inspection procedure had not been initiated at the time of our fieldwork.

Portland District

According to the Chief, Permit Evaluation Section, Portland district project managers' time is used to process permits rather than conduct routine permit follow-up inspections. However, a project manager occasionally will drive by a permitted site and, if unauthorized activity is taking place, will file a complaint report, the Chief said. Although the district documented 11 compliance inspections on the 43 individual permits we reviewed, no inspections were conducted on the 20 general permits we reviewed.

According to the Chief, Permit Evaluation Section, and the Enforcement Officer in Portland, there is no program to ensure compliance with permit conditions. The Enforcement Officer agreed that violations may be occurring, but he could not document how severe a problem may exist.

Vicksburg District

The Regulatory Branch Chief of the Vicksburg district indicated that the district does not have the staff resources or the funds to routinely carry out compliance inspections. Only 1 documented compliance inspection was included in the 32 individual permit files we reviewed, and none of the general permits we reviewed contained documentation of compliance inspections.

According to the Chief, compliance monitoring is initiated on the basis of the scope of the permitted project, with large or environmentally sensitive projects receiving a higher priority for compliance visits. Generally, the Regulatory Branch notifies the Corps' area offices of permits issued in their areas and sends a compliance checklist that area office staff are supposed to complete on each compliance visit. The Regulatory Branch Chief acknowledged that since the area offices request funding from the Regulatory Branch to conduct these inspections and there have been budget cutbacks, they may not be done.

Corps Districts Use Administrative Rather Than Civil and Criminal Remedies Even When Violations Appear Serious

Corps district engineers have several options they can pursue after they establish that unauthorized activities have taken place. They can negotiate restoration or mitigation agreements, issue after-the-fact permits, or seek administrative, civil, or criminal remedies. In pursuing its enforcement responsibilities, the Corps districts and EPA rarely used available civil and criminal remedies, including administrative penalties, preferring instead to rely on the voluntary actions of violators to rectify the problems observed. This was also true for some of the more serious violations in our samples.

Civil and Criminal Penalties Used Infrequently

Under the Clean Water Act, any person who willfully or negligently violates any condition or limitation in a permit is to be punished by a fine of up to $25,000 per day of violation or by imprisonment for not more than 1 year, or both. If a violator is convicted more than once, the fine could reach $50,000 per day of violation, and imprisonment could be for up to 2 years.

Besides federal convictions under the Clean Water Act, some Corps districts also refer cases to state agencies for prosecution. For example, the Baltimore district, which covers at least part of several states including Pennsylvania, refers some cases to the Pennsylvania Fish and Game Commission, which is authorized to impose on-the-spot fines ranging from $25 to $2,500. Also, a sample case from the Jacksonville district was closed by the Corps when the state of Florida successfully sued a violator and imposed a $13,000 fine.

Despite these available authorized legal actions, the five Corps districts we visited generally pursued administrative solutions with violators even if it took months or years to resolve problems. Although most violations of permit requirements we reviewed involved relatively minor infractions and some individuals may not have been aware of Section 404 permit requirements, some cases involved more serious violations and violators who did not abide by Corps orders to stop activities that violated permit standards.

In the five districts, six civil actions and no criminal actions were documented as having been pursued by the Corps districts during the 3 fiscal years 1984 to 1986. Both the Portland and Vicksburg districts reported no civil or criminal actions for the 3-year period. In the Baltimore district, two civil actions were reported in each of the years 1984 and 1985, but none was reported in 1986. In the Omaha district there were two civil actions in 1985 and none in 1984 or 1986. Jacksonville does not maintain information on such enforcement matters, according to the Acting Chief Counsel.

In addition to the few civil and criminal proceedings, only two monetary fines imposed as a result of Corps-initiated action were documented in the districts. One in the amount of $10,000 occurred in the Vicksburg district, and one for $2,500 represented action taken on one of our Jacksonville sample cases.

Administrative Remedies Emphasized Even When Unauthorized Fills Appeared to Warrant Referral to U.S. Attorneys

Upon substantiating violations of Section 404 permitting requirements, Corps district officials we contacted were not inclined to pursue legal remedies for several reasons, including the high costs of adjudication, limited environmental impact of most violations, perceived adversarial nature of some courts to the Section 404 program, and tendency of violators to voluntarily restore affected areas. Although most of these actions appeared justified, we found that the Corps districts pursued administrative remedies with violators in several cases that involved large unauthorized fill areas or open defiance of Corps cease-and-desist orders.

The two methods most often used to resolve unauthorized activity cases in the enforcement files we reviewed were requiring violators to restore affected areas to their original condition and issuing after-the-fact permits. For example, of the 125 suspected unauthorized activities that we reviewed (87 of which were found to be actual violations), restoration was required in 36 cases and after-the-fact permit applications were accepted in 25 cases. Mitigation was seldom required in the sample cases.

The following comments by Corps district officials or others who deal with the five districts concern the rationale for relying on administrative rather than legal remedies when violations are detected. Also, we discuss some of our sample cases from each district that appeared to involve open defiance of Corps cease-and-desist orders or large unauthorized fills.

Baltimore District

According to a U.S. attorney who coordinates Baltimore Corps district legal activities in Maryland, no cases have been forwarded to them by the district for formal prosecution and/or litigation in the past 5 years. A process called "minor listing" has become the standard method that the Baltimore district uses to deal with unpermitted fill violations. According to the Chief of the Baltimore district's Enforcement Section, minor listing is a procedure that was developed for use when violations with minimal environmental impact occur, but a permit would not normally have been granted if required permitting procedures had been followed. Under the minor listing procedure, the U.S. attorney sends violators a letter citing them for violating Section 404 and warning them that any other violations may be subject to prosecution by the federal government. Although officials from the U.S. attorney's office told us that minor listing is a relatively weak sanction, it does provide public awareness of the Section 404 program and is a likely deterrent to future violations by so-called "Mom and Pop" violators.

In the Baltimore district six of the cases in our enforcement sample were minor listed or designated for such action. However, three of these cases had previously been categorized by Corps enforcement officers as major infractions. Reasons provided by Corps enforcement officials for designating these cases for minor listing rather than pursuing other legal remedies included (1) upon further investigation the unauthorized fill was considered too small and the situation was not precedent-setting, (2) restoration or mitigation was impossible since the fill had been completed long before the violation was investigated by the Corps, and (3) the Corps' attempt to refer the case to the state of Pennsylvania for prosecution failed because the state's statute of limitations had expired.

Jacksonville District

Jacksonville district regulatory personnel refer potential legal actions to the district's counsel after they have exhausted all means to obtain voluntary compliance. The district counsel initially attempts to negotiate acceptable restoration agreements with violators. If acceptable agreements cannot be reached, the counsel refers the cases to the U.S. attorneys. Two of our sample cases were referred to the U.S. attorney.

A U.S. attorney obtained a $2,500 fine and an injunction from further unauthorized activity against one violator. In the other case, the violator complied with a consent decree that required total restoration of the wetland site. A U.S. attorney told us that the Jacksonville district refers cases that usually result in prosecution and the district provides adequate evidence demonstrating careful review prior to referral for prosecution. We believe, however, that some of our other sample cases such as the following may have been appropriate candidates for referral.

- A Florida development company deposited fill in wetlands without obtaining a Section 404 permit. Jacksonville district field investigators issued a cease-and-desist order in September 1985. NMFS, EPA, and FWS recommended that all unauthorized fill be removed and that the area be regraded to wetland elevations and allowed to revegetate naturally. FWS further stated that the violator was aware of permit requirements. EPA recommended that the case be referred to the U.S. attorney if the violator did not comply with the FWS-recommended restoration plan. The district, however, issued an after-the-fact permit for fill material in wetlands.

Omaha District

In pursuing its enforcement responsibilities, the Omaha district has seldom used available civil and criminal remedies or administrative penalties. In most cases the district has obtained compliance through administrative means such as voluntary restoration rather than resorting to legal action. Within the last 3 years, the district pursued legal action through the U.S. attorneys in only three cases. However, the following case from our Omaha sample involved a large unpermitted wetland fill for which EPA, with the consent of the district, was pursuing restoration or mitigation rather than taking legal action.

- Unpermitted activities in the Sandhills area of Nebraska resulted in the destruction of an estimated 165 acres of prime wetlands. The unpermitted filling lasted for 5 years after the district became aware of them. In 1981, the Omaha district's counsel notified the U.S. attorney's office of this situation. However, an assistant U.S. attorney notified the district that the case was being closed due to insufficient evidence. The case went into an inactive status for over 4 years, but enforcement action was reopened in 1985 after Corps aerial surveillance revealed additional filling in the area. The Corps issued a cease-and-desist order, and since December 1985 the district and EPA have been negotiating a settlement with the landowners to provide mitigation measures if the landowners can prove that full restoration is not feasible. EPA does not plan to seek fines against the landowners.

Portland District

District officials in Portland, including the Chief of the Environmental and Inspection Section, the Special Assistant to the U.S. Attorney,[1] and project managers all believe that there is little or no incentive to seek civil or criminal penalties. The Chief of the Environmental and Inspection Section told us that fines have not been levied by the district since 1981, and only four cases in 1980 and 1981 could be identified; none of the fines exceeded $2,500. According to the Special Assistant, certain factors work against pursuing legal action. Given the low amount of assessed fines and the fact that pursuing legal action is time- consuming and costly, it is uneconomical to seek legal remedies when voluntary compliance can generally be achieved. Further, if the action does not affect a significant wetland, and none have to date, the Corps probably would not get much support from the courts or the public, he said.

The Special Assistant had two cases in process, one involving a repeat offender. However, he told us that he would not seek fines or other legal remedies in either case because he believes they can best be handled through voluntary compliance measures. In one of these cases, the Portland Corps district had to issue two cease-and-desist orders to a fuel processing company that had deposited about 5,000 cubic yards of unauthorized fill material in wetlands. After issuance of the first cease-and-desist order, the company made no effort to avoid further wetland fill and consequently fresh fill continued to accumulate on the wetland. Currently, the Corps is pursuing voluntary restoration and plans to issue an after-the-fact permit.

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[1] An attorney in the Corps' Portland district counsel's office has been appointed Special Assistant to the U.S. Attorney.

Vicksburg District

According to the Regulatory Branch Chief of the Vicksburg district, the district's practice has been to continue the use of administrative means to resolve enforcement problems, even when violators are uncooperative. This approach has been taken because, during recent years, the district's counsel has frequently discouraged the use of legal action in enforcement matters, the chief said. In his opinion, the district's reluctance to pursue litigation against uncooperative violators has sent a clear message to the public that there is little risk of penalty for violating Section 404, and as a consequence some cases may continue unresolved for years.

The district's counsel explained that the criterion for referring enforcement cases for litigation is to select only those cases that can clearly be won because the regulation of private land is not readily accepted in the district's area and judges have indicated they will be adversarial toward Section 404 cases. One area judge told the district's counsel that he viewed the Section 404 program as unconstitutional. While acknowledging that regulation of private land may not be readily accepted by the courts, the Department of Commerce believes that it is important to keep in mind that, in many states, coastal wetlands are property of the state.

Two U.S. attorneys we contacted who deal with the Vicksburg district varied in their criteria for selecting cases for legal action. A U.S. attorney in Louisiana's eastern district explained that Section 404 cases referred by the Corps are considered in the selection process against the merits of cases submitted by other federal agencies. Selection for litigation is based on choosing cases that provide taxpayers the most for the federal resources expended on litigation. The attorney noted three criteria that may be applied to select Section 404 cases for legal action. They are (1) cases involving large wetlands, (2) cases viewed as precedent-setting and involving large commercial development projects in wetlands, and (3) cases where a clear and significantly detrimental environmental impact is an issue. In contrast, a U.S. attorney in Louisiana's western district indicated that any case, large or small, referred by the

Vicksburg district would likely be accepted because the government's intent to enforce Section 404 needs to be demonstrated.

The following case from our sample demonstrates how lengthy negotiations between the Corps and violators of Section 404 permit requirements can complicate enforcement action.

- In July 1981, the Vicksburg district denied a permit for the construction of levees to develop a catfish farm within certain wetlands. In September, an investigation revealed that levee construction was being done in the wetlands despite the district's permit denial. The district issued a cease-and-desist order directing that the work be stopped. The violator disregarded the order and continued the work. The Regulatory Branch referred the matter to the Vicksburg district counsel for consideration of legal action. The matter, however, was not referred to a U.S. attorney's office, apparently because the violator subsequently encountered financial problems that prevented him from further construction or restoration of the area.

  In November 1985, the district renewed administrative actions with a new owner who had acquired the property through a foreclosure sale. The new owner agreed to restore the area by March 1986, but subsequently received three extensions of the order. In January 1987, the Corps accepted the owner's offer of a perpetual wildlife easement on about 90 acres in another county in exchange for the Corps' withdrawing its restoration order.

In commenting on a draft of this report, the Department of Defense concurred with our observations regarding limited use of civil and criminal penalties against violators; however, they explained that there are several underlying reasons for not using judicial action, including the following:

- Years of experience with the Department of Justice have resulted in most districts' taking administrative action to get a quicker resolution of the problem, rather than pursuing the involved paperwork and delay necessary to attempt to convince the U.S. attorney to take the case.
- The U.S. attorneys are for the most part as overloaded as the Corps enforcement program and are willing to pursue only the most significant violations. Civil cases involving the filling of a few acres of wetlands cannot compete for attention with drug enforcement and other criminal cases.

- The Corps has traditionally viewed seeking voluntary compliance rather than punitive legal action as "good government." The issues and controversies surrounding government regulation of the use of privately owned properties are not easily resolved on a national or individual case basis.

The Department believes that the EPA administrative fine authority authorized under the Water Quality Act of 1987 is a way to shore up a recognized weakness in deterrence of unauthorized activities.

We agree that the pursuit of legal action is not appropriate in all cases involving violations of the Section 404 program; however, some cases in our samples involved serious violations of program requirements that warranted referral to U.S. attorneys. In addition, Section 404 is a regulatory program that we believe warrants a strong enforcement presence if it is to prevent the unnecessary loss of valuable wetlands.

Few Permits Are Suspended or Revoked

District engineers may reevaluate permits and their conditions on their own, at the request of permittees, at the request of third parties, or on the basis of periodic compliance inspections. On the basis of the reevaluation, they can initiate action to modify, suspend, or revoke a permit if such action is in the public interest. When district engineers determine that permittees have violated the terms or conditions of their permits, the district engineers can attempt to resolve the violation through any of several means, including (1) getting permittees to voluntarily bring their projects into compliance, (2) allowing permits to be modified, or (3) issuing compliance orders that specify a time period of not more than 30 days for bringing the project into compliance. If permittees fail to adhere to such orders within the specified time, district engineers may consider suspending or revoking their permits, or they may recommend legal action.

The districts we visited suspended or revoked permits infrequently, preferring instead to pursue administrative remedies for bringing about compliance with permit conditions or allowing permits to be modified. According to Corps headquarters officials, many permit modifications are made throughout the year, which might explain the low number of suspensions and revocations.

The five Corps districts we visited could not identify any permit revocations during fiscal years 1984 to 1986. The Omaha district did not maintain records of suspensions or revocations prior to fiscal year 1986, when it reported six suspensions. There were 10 documented suspensions in the other 4 districts. Of these, Baltimore had one; Jacksonville, five; Portland, none; and Vicksburg, four. The five Jacksonville suspensions date back to 1977; the Baltimore, Portland, and Vicksburg suspensions reflect data from fiscal years 1984 to 1986.

Conclusions

Surveillance to detect potential unauthorized activities in their areas of jurisdiction is not a high priority in any of the five Corps districts we visited. Corps district officials place primary emphasis on the processing of permits. The districts also did not investigate many suspected unauthorized fills for weeks or months after they were reported, and many issued permits were not monitored for compliance with permit conditions. Although the lack of records prevented us from documenting the full extent of the potential problem, this frequent lack of monitoring could be resulting in the loss of valuable wetland resources if unauthorized activities are not discovered and dealt with in a timely manner.

Lack of staff and budget constraints at Corps district offices and the resource agencies are the primary reason given by agency officials for the limited surveillance and monitoring. However, it appears that if the Corps and EPA better coordinated their combined resources, they could bring about a more comprehensive and systematic monitoring and enforcement effort.

When unauthorized activities were identified, rather than seeking legal sanctions against those who did not comply with permit requirements, district officials usually chose to seek voluntary compliance and other administrative remedies. These most often included restoring areas or issuing after-the-fact permits. Although this may be appropriate action in many cases, the districts pursued administrative procedures in some cases where violators openly defied Corps cease-and-desist orders. It appeared that some of these cases warranted referral to U.S. attorneys for possible legal actions.

The Corps districts we visited also suspended and revoked few permits. Part of the explanation for the low number of suspensions and revocations could be the lack of routine compliance inspections by the Corps districts to determine if permittees are adhering to permit conditions. Without such inspections it would be difficult to substantiate suspension or revocation actions.

EPA, which has independent enforcement authority under the Clean Water Act, has used its authority sparingly. While there is some preliminary indication that the 1987 amendments to the act, which give both EPA and the Corps increased enforcement authority, are being used by EPA, it is too early to judge how effective an enforcement tool this new authority will be over time.

Recommendations to the Secretary of the Army

In order to strengthen enforcement of the Section 404 program, we recommend that the Secretary of the Army direct the Chief, Corps of Engineers, to do the following:

- Develop, with the participation of EPA, a coordinated enforcement program utilizing the combined resources of both agencies and others to deal with violations of Section 404 permit requirements. Such a program should involve routine surveillance, compliance inspections, timely investigation and reporting of unauthorized activities, and appropriate penalties where authorized.
- Establish a national oversight program to evaluate Corps district performance in enforcing the Section 404 program.

Agency Comments and Our Evaluation

While the Department of Defense supports the need for more coordinated use of Corps and EPA resources in enforcing the Section 404 program, it does not believe that even the combined resources of the agencies are sufficient to handle an inspection and after- permit follow-up for the estimated 30,000 individually permitted actions (Section 10 and/or Section 404) that are in an authorized construction period at any given time. According to the Department, the logistics and cost of inspecting each of these would be considerable, given that the Corps has only about 150 enforcement project managers who are overloaded with program jurisdictional determination decisions and other duties and the EPA has less resources. The Department contends that the Corps does as much as should be expected with the limited resources available.

Regarding the Department of Defense concern that about 30,000 individual permit actions may be present in the 36 Corps districts at any given time, we believe that the number needing inspections during a year would be significantly less because, for example, construction would not have started on many projects. If the Corps developed a system similar to the proposed Omaha district compliance inspection system, which would include a tracking mechanism, the districts could make more informed judgments regarding the need for project compliance inspections.

EPA, while agreeing that specific emphasis on increasing the enforcement effort is needed, was concerned that enforcement activities, including surveillance, are time and resource intensive. EPA believes that any significant increase in enforcement activity may result in a decrease in some other program activity such as permit processing. Nonetheless, EPA was in favor of increasing enforcement efforts even if an adjustment of existing resources was required.

The Department of the Interior stated that enforcement should be made a higher priority by the Corps. They also believe that the Corps may need to realign its current resources or seek additional ones for such an effort to be effective.

The Department of Defense agreed with the need to increase oversight of the Section 404 enforcement program and stated that the Corps has taken steps to increase its oversight of district enforcement efforts. For example, the Corps has (1) revised its enforcement reporting requirement from an annual to a quarterly basis to strengthen its oversight, (2) developed new enforcement training as a part of the overall regulatory training effort, (3) revised its enforcement regulations to provide more flexibility in resolving enforcement cases, and (4) encouraged more action by EPA. Also, the Corps and EPA are working on an enforcement memorandum of agreement to better define the role of each agency.

We commend the efforts of the Corps and EPA to improve enforcement of the Section 404 program. We believe that in developing the new enforcement memorandum of agreement, the Corps and EPA should include procedures commensurate with the authority and responsibility of each agency to conduct routine surveillance, compliance inspections, timely investigation of reported suspected unauthorized activities, and penalty assessment when appropriate. We believe that, by working together, the Corps and EPA can develop an enforcement program that optimizes use of the current resources available to them.

The text of the agencies' comments, and additional GAO responses, are included in appendixes II through V.

Appendix I

Additional Details on Sample Selection

The five Corps districts we visited did not maintain records for the Section 404 program in a consistent manner. Therefore, we used various selection methods for our random samples of individual permits, suspected unauthorized activities, and general permits. The following table shows the universe and sample sizes in the five districts, followed by a description of how we proceeded with our sample selection in each district.

Table I.1: Sample Cases

	Individual permits			Unauthorized activities		General permits	
Corps district	Total permits	GAO sample	Number in sample with comments	Universe	Sample	Universe	Sample
Baltimore	356	117	42	154	25	676	20
Jacksonville	582	177	40	195	25	1,633	20
Omaha	250	104	40	59[a]	25	42	20
Portland	79	43	43	62	25	96	20
Vicksburg	152[b]	77	32	68	25	150	20

[a] These represented those reported activities that involved wetlands

[b] In the case of Vicksburg, the district's individual permits actually represent "sites" permitted

Baltimore District

Individual Permits

To select our sample of individual permits for the Baltimore district, we randomly numbered 356 permits. This was the total number of Section 10, Section 404, and 404/10 permits issued within the district in fiscal year 1986. District computer-generated records included permits where resource agencies had responded in any manner, including no objections and no comments. Corps computer listings also did not distinguish between Section 10 and Section 404 permits.

In order to obtain our sample of 42 individual permit files, we reviewed 117 of the 356 permit files. Twenty-five of these files were eliminated from the sample because they were permits for Section 10 work only. Another 48 files were excluded from the sample because resource agencies had either no comment or no objections to the project. Two other permits were excluded because Baltimore staff could not locate the files when requested.

Enforcement Cases

The sample of alleged violations reported or detected was drawn from a universe of 154 cease-and-desist orders for fiscal year 1986, which were provided by District officials. We selected a random sample of 25 files from the universe of 154.

General Permits

Although the fiscal year 1986 annual report listed 924 regional general permits, Corps officials could only locate files for 676. Corps officials explained that some of the files may be located in one of their field offices. We used the 676 files as our universe to randomly order and select 20 for our sample.

Jacksonville District

Individual Permits

To select our sample of individual permits for the Jacksonville district, we randomly numbered 582 permits. This was the total number of Section 10, Section 404, and 404/10 permits issued within the district in fiscal year 1986. District computer-generated records included permits for which resource agencies had responded in any manner, including no objections and no comments. Corps computer listings also did not distinguish between Section 10 and Section 404 permits.

In order to obtain our sample of 40 individual permit files, we reviewed 177 of the 582 permit files. Sixty-three of these files were eliminated from the sample because they were permits for Section 10 work only. Another 71 files were excluded from the sample because resource agencies had either no comment or no objections to the projects. Three other permits were excluded because the state of Florida denied permits for the projects.

Enforcement Cases

We drew the sample of alleged violations reported or detected from a universe of 195—the total number of cease-and-desist orders issued for fiscal year 1986. We selected a random sample of 25 files from the universe of 195.

General Permits

The fiscal year 1986 annual report listed 1,633 general permits. We used the 1,633 files as our universe to randomly order and select 20 for our sample.

Omaha District

Individual Permits

Corps records showed that 250 individual permits were issued in fiscal year 1986, of which 104 permit applications were commented on by the resource agencies. The Corps' coding indicated that of the universe of 104 permits with resource agency comments, only 10 permits applied to areas the Corps defined as wetlands. We reviewed all 10 cases, but subsequently discovered that 1 permit was actually issued in fiscal year 1985. We also randomly selected an additional 30 cases that required permits under Section 404. We identified 2 other permits that affected wetlands in these additional 30 cases.

Enforcement Cases

In arriving at the universe of alleged violations reported or detected, we identified 59 reported activities that involved wetlands from a Corps log of 200 reported activities in fiscal year 1986. The other activities did not involve wetlands as defined by the Corps; therefore, we drew our sample of 25 cases from the 59 cases that involved wetlands.

General Permits

We randomly selected a sample of 20 regional general permit cases from a universe of 42 Section 404 activities authorized under regional general permits in fiscal year 1986.

Portland District

Individual Permits

The Portland district provided a computer printout identifying a universe of 79 Section 404 and Section 10/404 individually issued permits in fiscal year 1986. District officials had coded each case by resource agency comments, such as approved or no comment/no action, conditions recommended, denial recommended, or elevation likely. We determined that 43 fiscal year 1986 Section 404 or Section 10/404 individually issued permits were commented on by at least 1 resource agency. We sampled the entire universe of 43 cases.

Enforcement Cases

Corps Portland officials do not keep detailed documentation on reports of alleged unauthorized discharges. Although several hundred reports of suspected violations annually come to the district, documentation is kept only when the Corps actually conducts an inspection. The enforcement officer identified and provided us with each fiscal year 1986 Corps-inspected violation case file as our universe of unauthorized discharge reports. This universe consisted of 62 cases with reports of unauthorized discharges, violations of permitted activities, and cases that were immediately resolved or had no violation. We numbered the cases from 1 to 62 and randomly selected 25 Section 404 or Section 10/404 cases.

General Permits

The Portland district provided us with a computer printout for fiscal year 1986 identifying a universe of 96 written inquiries regarding the use of nationwide or regional permits. We numbered the inquiries from 1 through 96 and randomly selected 20 Section 404 or Section 10/404 cases.

Vicksburg District

Individual Permits

The Vicksburg district Annual Report showed that 152 Section 404 and Section 10/404 sites were permitted. We found that 77 applications had comments from at least 1 of the resource agencies. Because the Vicksburg district often issues permits to cover multiple sites, the actual number of permits we included in our sample was 32.

Enforcement Cases

We drew the sample of alleged violations from a universe of 68 violations of Section 404 and Section 10/404 reported during fiscal year 1986. This universe was derived from an official log of reports maintained by the Vicksburg district. From this universe we randomly selected 25 cases to review.

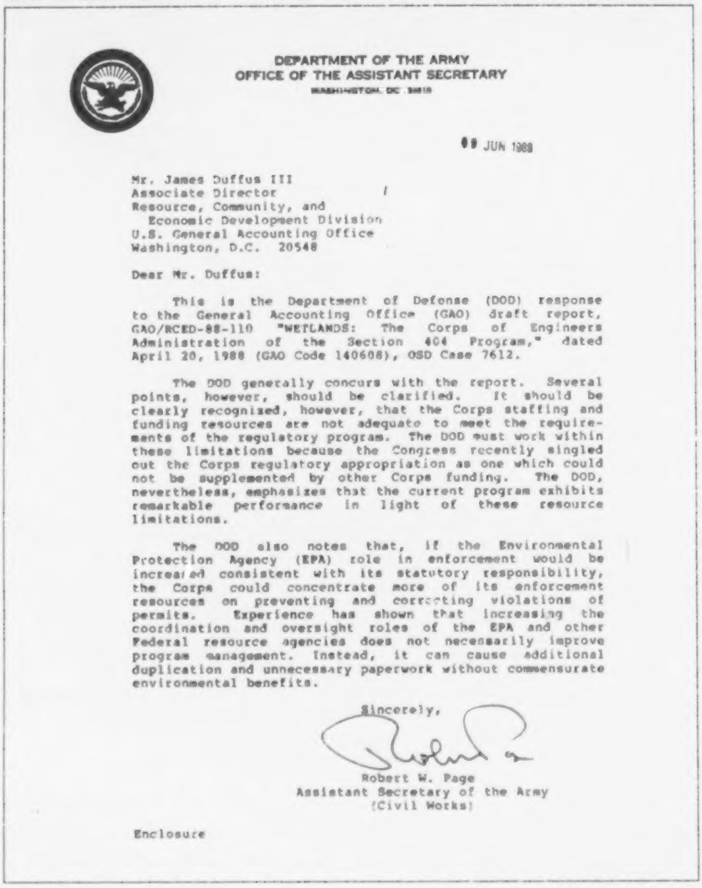
General Permits

For the sample of general permits, Vicksburg officials provided us with a computer listing of 150 general permits issued in fiscal year 1986. We randomly ordered the list and selected the first 20 for our sample.

Appendix II

Comments From the Department of Defense

Note: GAO comments supplementing those in the report text appear at the end of this appendix.



DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
WASHINGTON, DC [illegible]

[illegible] JUN 1988

Mr. James Duffus III
Associate Director
Resource, Community, and
Economic Development Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Duffus:

This is the Department of Defense (DOD) response to the General Accounting Office (GAO) draft report, GAO/RCED-88-110 "WETLANDS: The Corps of Engineers Administration of the Section 404 Program," dated April 20, 1988 (GAO Code 140608), OSD Case 7612.

The DOD generally concurs with the report. Several points, however, should be clarified. It should be clearly recognized, however, that the Corps staffing and funding resources are not adequate to meet the requirements of the regulatory program. The DOD must work within these limitations because the Congress recently singled out the Corps regulatory appropriation as one which could not be supplemented by other Corps funding. The DOD, nevertheless, emphasizes that the current program exhibits remarkable performance in light of these resource limitations.

The DOD also notes that, if the Environmental Protection Agency (EPA) role in enforcement would be increased consistent with its statutory responsibility, the Corps could concentrate more of its enforcement resources on preventing and correcting violations of permits. Experience has shown that increasing the coordination and oversight roles of the EPA and other Federal resource agencies does not necessarily improve program management. Instead, it can cause additional duplication and unnecessary paperwork without commensurate environmental benefits.

Sincerely,

Robert W. Page
Assistant Secretary of the Army
(Civil Works)

Enclosure

GAO DRAFT REPORT DATED APRIL 20, 1988
(GAO CODE 140608) OSD CASE 7612

"WETLANDS: THE CORPS OF ENGINEERS'
ADMINISTRATION OF THE SECTION 404 PROGRAM"

DEPARTMENT OF DEFENSE COMMENTS

* * * * *

FINDINGS

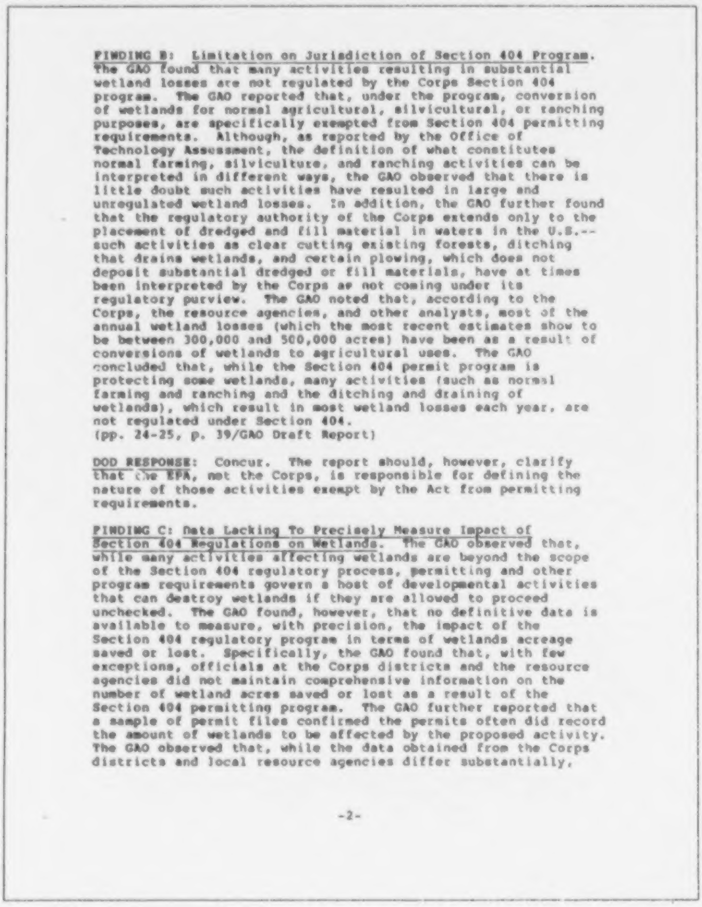
FINDING A: Wetlands--The Clean Water Act: Federal Wetlands Protection Authority. The GAO reported that wetlands, which generally include swamps, marshes, bogs, and similar areas, have been disappearing at the rate of about 300,000 to 500,000 acres a year. The GAO observed that, in the past, wetlands have been considered unimportant areas to be filled or drained for various uses, and only recently, have the important ecological benefits provided by wetlands come to be widely recognized. Specifically, the GAO reported wetland losses, which the U.S. Fish and Wildlife Service (FWS) estimates averaged about 458,000 acres per year from the mid-1950s to the mid-1970s, are now a matter of concern. The GAO reported that the Corps of Engineers is the primary Federal agency responsible for regulating wetlands development under Section 404 of the Clean Water Act of 1977. The GAO further reported that, although it does not authorize a comprehensive wetlands management program, Section 404 provides the primary legislative authority behind Federal efforts to control wetlands use. The GAO noted that the Section 404 regulatory program is composed of two basic elements--permitting and enforcement. The GAO explained that permits are issued to regulate discharges for dredged or fill materials into waters of the United States, including wetlands. The GAO also noted that subsequent to permit issuance, Section 404 requires that permit requirements be enforced, and authorizes the use of civil and criminal penalties for failing to adhere to such requirements. The GAO concluded that, since its enactment, the Section 404 program has been the subject of much controversy concerning the extent to which Section 404 is to function as a wetlands protection law. (p. 2, pp. 11-21/GAO Draft Report)

Now on p. 2 and pp. 8-16.

See comment 1.

DOD RESPONSE: Concur. The report, however, fails to recognize that the Environmental Protection Agency (EPA) has the primary responsibility for the enforcement of the Act against unauthorized discharges. The Corps may explicitly enforce against violations of permit conditions only. Also, the basis of the 300,000 to 500,000 acres per year estimate for wetland loss should be indicated in the report for clarity. For example, the 458,000 acre figure has little relevance since it was based on the Fish and Wildlife Service estimate of loss before 404 was fully implemented in 1977.

Enclosure



FINDING B: Limitation on Jurisdiction of Section 404 Program. The GAO found that many activities resulting in substantial wetland losses are not regulated by the Corps Section 404 program. The GAO reported that, under the program, conversion of wetlands for normal agricultural, silvicultural, or ranching purposes, are specifically exempted from Section 404 permitting requirements. Although, as reported by the Office of Technology Assessment, the definition of what constitutes normal farming, silviculture, and ranching activities can be interpreted in different ways, the GAO observed that there is little doubt such activities have resulted in large and unregulated wetland losses. In addition, the GAO further found that the regulatory authority of the Corps extends only to the placement of dredged and fill material in waters in the U.S.--such activities as clear cutting existing forests, ditching that drains wetlands, and certain plowing, which does not deposit substantial dredged or fill materials, have at times been interpreted by the Corps as not coming under its regulatory purview. The GAO noted that, according to the Corps, the resource agencies, and other analysts, most of the annual wetland losses (which the most recent estimates show to be between 300,000 and 500,000 acres) have been as a result of conversions of wetlands to agricultural uses. The GAO concluded that, while the Section 404 permit program is protecting some wetlands, many activities (such as normal farming and ranching and the ditching and draining of wetlands), which result in most wetland losses each year, are not regulated under Section 404.
(pp. 24-25, p. 39/GAO Draft Report)

Now on pp. 19, 20, and 32

DOD RESPONSE: Concur. The report should, however, clarify that the EPA, not the Corps, is responsible for defining the nature of those activities exempt by the Act from permitting requirements.

See comment 2

FINDING C: Data Lacking To Precisely Measure Impact of Section 404 Regulations on Wetlands. The GAO observed that, while many activities affecting wetlands are beyond the scope of the Section 404 regulatory process, permitting and other program requirements govern a host of developmental activities that can destroy wetlands if they are allowed to proceed unchecked. The GAO found, however, that no definitive data is available to measure, with precision, the impact of the Section 404 regulatory program in terms of wetlands acreage saved or lost. Specifically, the GAO found that, with few exceptions, officials at the Corps districts and the resource agencies did not maintain comprehensive information on the number of wetland acres saved or lost as a result of the Section 404 permitting program. The GAO further reported that a sample of permit files confirmed the permits often did record the amount of wetlands to be affected by the proposed activity. The GAO observed that, while the data obtained from the Corps districts and local resource agencies differ substantially, all agreed that the Corps program, although not regulating most wetland losses, is serving to protect some wetlands. The GAO noted, however, that the resource agencies have developed preliminary estimates of program impact as a result of the Section 404 permitting requirements. The GAO concluded that, with respect to those activities that are regulated, available information suggests some wetlands are being saved; however, neither the Corps, the resource agencies, nor any other group maintains the data necessary to precisely estimate this savings. (pp. 24-29, p. 39/GAO Draft Report)

Now on pp. 19-23 and p. 33.

DOD RESPONSE: Concur. (Also see the DOD response to Recommendation 1.)

FINDING D: Extent Of Regulatory Jurisdiction Could Change With Different Interpretations Of Regulations And Guidance. The GAO found that, while there is little doubt that the Corps program is saving some wetlands, there is disagreement between the Corps and the resource agencies over whether the Corps is using the full range of its authority to protect as much wetland acreage as it could. The GAO reported that the disagreement involves interpretation of several key provisions of regulations and guidance involving determinations on how to:

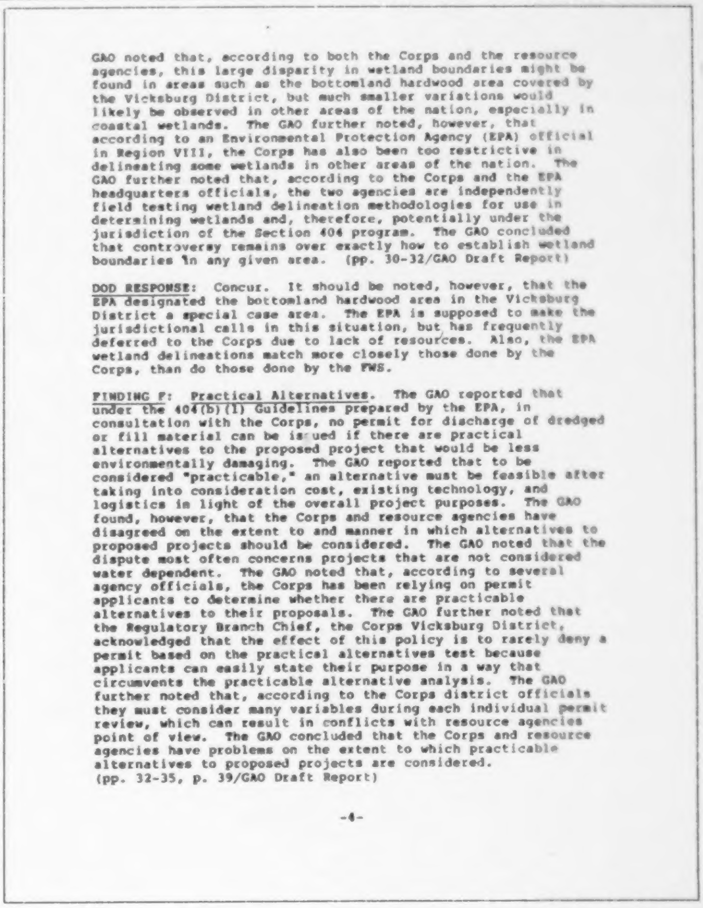
- delineate wetland boundaries;
- assess the cumulative impacts of individual permit decisions; and
- consider alternatives to development in wetlands.

The GAO concluded that, depending on whether these provisions are interpreted narrowly or expansively, the Section 404 regulatory impact can be decreased or increased and the assessment of Corps districts performance in implementing the program could change appreciably. (pp. 29-30/GAO Draft Report)

Now on pp. 23-25.

DOD RESPONSE: Concur.

FINDING E: Wetland Delineation. The GAO reported that the Corps and the resource agencies may delineate wetlands differently and this can result in wetlands determinations that vary by thousands of acres. The GAO observed that this, in turn, could affect the degree to which the Corps assumes Section 404 program jurisdiction in an area. As an example, the GAO noted that this was evidenced by the disparate estimates of wetland impacts prepared by the Corps and U.S. Fish and Wildlife Service (FWS) in Vicksburg, where the Corps determined that the program allowed the loss of about 800 acres of wetlands in FY 1986, whereas the FWS estimated that about 56,000 acres were adversely impacted. The GAO found that this large difference in estimated wetland impacts can be primarily attributed to the different manner in which the Corps District and the FWS Field Office delineated those wetlands that should come under the jurisdiction of the Section 404 program. The



GAO noted that, according to both the Corps and the resource agencies, this large disparity in wetland boundaries might be found in areas such as the bottomland hardwood area covered by the Vicksburg District, but much smaller variations would likely be observed in other areas of the nation, especially in coastal wetlands. The GAO further noted, however, that according to an Environmental Protection Agency (EPA) official in Region VIII, the Corps has also been too restrictive in delineating some wetlands in other areas of the nation. The GAO further noted that, according to the Corps and the EPA headquarters officials, the two agencies are independently field testing wetland delineation methodologies for use in determining wetlands and, therefore, potentially under the jurisdiction of the Section 404 program. The GAO concluded that controversy remains over exactly how to establish wetland boundaries in any given area. (pp. 30-32/GAO Draft Report)

Now on pp. 23-25.

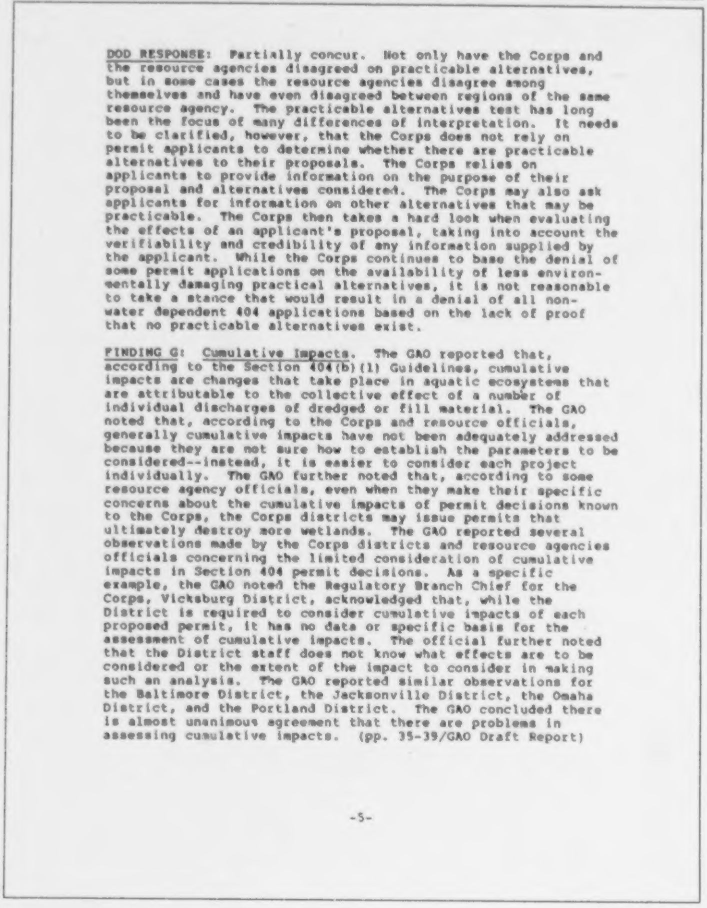
DOD RESPONSE: Concur. It should be noted, however, that the EPA designated the bottomland hardwood area in the Vicksburg District a special case area. The EPA is supposed to make the jurisdictional calls in this situation, but has frequently deferred to the Corps due to lack of resources. Also, the EPA wetland delineations match more closely those done by the Corps, than do those done by the FWS.

See comment 2

FINDING F: Practical Alternatives. The GAO reported that under the 404(b)(1) Guidelines prepared by the EPA, in consultation with the Corps, no permit for discharge of dredged or fill material can be issued if there are practical alternatives to the proposed project that would be less environmentally damaging. The GAO reported that to be considered "practicable," an alternative must be feasible after taking into consideration cost, existing technology, and logistics in light of the overall project purposes. The GAO found, however, that the Corps and resource agencies have disagreed on the extent to and manner in which alternatives to proposed projects should be considered. The GAO noted that the dispute most often concerns projects that are not considered water dependent. The GAO noted that, according to several agency officials, the Corps has been relying on permit applicants to determine whether there are practicable alternatives to their proposals. The GAO further noted that the Regulatory Branch Chief, the Corps Vicksburg District, acknowledged that the effect of this policy is to rarely deny a permit based on the practical alternatives test because applicants can easily state their purpose in a way that circumvents the practicable alternative analysis. The GAO further noted that, according to the Corps district officials they must consider many variables during each individual permit review, which can result in conflicts with resource agencies point of view. The GAO concluded that the Corps and resource agencies have problems on the extent to which practicable alternatives to proposed projects are considered. (pp. 32-35, p. 39/GAO Draft Report)

Now on pp. 25-28 and p. 33.

-4-



See comment 2

DOD RESPONSE: Partially concur. Not only have the Corps and the resource agencies disagreed on practicable alternatives, but in some cases the resource agencies disagree among themselves and have even disagreed between regions of the same resource agency. The practicable alternatives test has long been the focus of many differences of interpretation. It needs to be clarified, however, that the Corps does not rely on permit applicants to determine whether there are practicable alternatives to their proposals. The Corps relies on applicants to provide information on the purpose of their proposal and alternatives considered. The Corps may also ask applicants for information on other alternatives that may be practicable. The Corps then takes a hard look when evaluating the effects of an applicant's proposal, taking into account the verifiability and credibility of any information supplied by the applicant. While the Corps continues to base the denial of some permit applications on the availability of less environmentally damaging practical alternatives, it is not reasonable to take a stance that would result in a denial of all non-water dependent 404 applications based on the lack of proof that no practicable alternatives exist.

FINDING G: Cumulative Impacts. The GAO reported that, according to the Section 404(b)(1) Guidelines, cumulative impacts are changes that take place in aquatic ecosystems that are attributable to the collective effect of a number of individual discharges of dredged or fill material. The GAO noted that, according to the Corps and resource officials, generally cumulative impacts have not been adequately addressed because they are not sure how to establish the parameters to be considered--instead, it is easier to consider each project individually. The GAO further noted that, according to some resource agency officials, even when they make their specific concerns about the cumulative impacts of permit decisions known to the Corps, the Corps districts may issue permits that ultimately destroy more wetlands. The GAO reported several observations made by the Corps districts and resource agencies officials concerning the limited consideration of cumulative impacts in Section 404 permit decisions. As a specific example, the GAO noted the Regulatory Branch Chief for the Corps, Vicksburg District, acknowledged that, while the District is required to consider cumulative impacts of each proposed permit, it has no data or specific basis for the assessment of cumulative impacts. The official further noted that the District staff does not know what effects are to be considered or the extent of the impact to consider in making such an analysis. The GAO reported similar observations for the Baltimore District, the Jacksonville District, the Omaha District, and the Portland District. The GAO concluded there is almost unanimous agreement that there are problems in assessing cumulative impacts. (pp. 35-39/GAO Draft Report)

Now on pp. 28-32

See comment 2

DOD RESPONSE: Concur. The determination about what constitutes the threshold for denial of all future permits in an area is the subject of much controversy and speculation. While it is correct to say the Corps may issue permits that allow the destruction of wetlands in areas that the agencies would like to protect, it must also be recognized that the Corps denies permits in areas the agencies want to see protected, and conditions or denies permits to respond to concerns about cumulative impacts. The evaluation of permit applications must be made taking into account many factors of the public interest. The Corps must not adopt a narrow view that all wetlands must be equally protected without consideration of value or the lack thereof, and without consideration of public and private needs. No exact methodology exists concerning cumulative impact assessment; however, it is the DOD position that the Corps resource professionals exercise judgment in a credible manner.

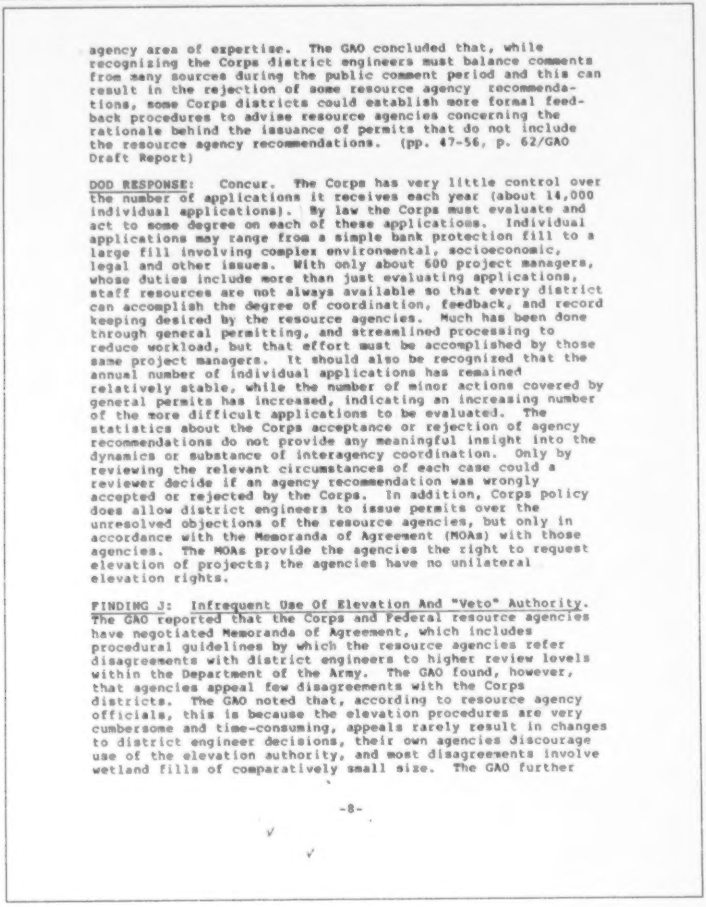
FINDING H: Pre-Application Coordination Varies by Corps Districts. The GAO reported the Corps regulations required district engineers to establish local procedures that allow potential applicants to consult with Corps regulatory personnel on proposed projects. The GAO found that resource agencies generally looked favorably on the concept of pre-permit consultations, but some agencies were concerned about the quality of information provided by the Corps districts in public notices, and during the pre-permit consultation period. The GAO further found that the Corps districts varied in the extent to which they involved resource agencies pre-permit consultation, and the resource agencies also differed in their assessments of the Corps districts means of involving them in the early stages of permit consideration. As an example, while the Corps Baltimore District holds bi-monthly meetings, at which time permit applications can be discussed, the Jacksonville District does not hold pre-application meetings, but does conduct what it refers to as pre-public notice conferences, and in the Vicksburg District pre-application matters are generally addressed in informal meetings over the telephone. The GAO observed that the Corps uses public notices as the primary means of advising interested parties and soliciting their comments on proposed permit activity. The GAO reported that the Corps regulations require the public notices to include information sufficient to give a clear understanding to the proposed activity, in order to generate meaningful comments. The GAO noted, however, that according to some resource agency officials, public notices sometimes contain inaccurate information, such as the wrong project location or insufficient information on project scope. The GAO nonetheless concluded that policies for involving resource agencies in the pre-permit application process indicates the Corps is generally receiving and considering resource agency views during the Section 404 permitting process, even though these procedures vary by district. (pp. 42-47, p. 61/GAO Draft Report)

Now on pp. 37-40 and p. 51.

See comment 2.

DOD RESPONSE: Partially concur. The Jacksonville District does not hold many pre-application meetings, but does conduct some. These generally occur during interagency meetings held every six weeks. Some of the proposals discussed during these meetings are from potential applicants. The variation in the Corps pre-application coordination procedures is not surprising. The Corps is a decentralized agency, which allows the field offices considerable freedom in best aligning resources to meet mission requirements.

FINDING I: Corps Districts Vary In Their Acceptance Of Resource Agency Recommendations. The GAO reported that the Corps public interest review includes consideration of resource agency recommendations on the proposed projects and comments may range from no major concerns with the proposed projects to recommendations for permit denial. The GAO found that, in the majority of permit application cases, the resource agencies either do not object to or do not comment on proposed projects, primarily due to the lack of resources. The GAO further found that some permits are issued over a resource agency denial recommendation. The GAO observed that, because some districts did not provide feedback to resource agencies on how their recommendations were considered, it could not document whether the resource agencies were satisfied with the Corps resolutions of these denial cases. The GAO noted that, according to a Vicksburg District official, the Corps policy provides that permits will not be issued over the unresolved denial recommendations of Federal agencies; however, the District considers a decision by an agency not to appeal disagreements as acceptance of its decision. The GAO further observed, however, that the resource agencies seldom resort to elevating projects to higher levels when they disagree with district engineers decisions, primarily because they do not believe that the elevation process results in changes to district engineer decisions. The GAO also found that, except for the National Marine Fisheries Service (NMFS), the Corps and the resource agencies do not accumulate verifiable data of the extent to which the Corps districts are adopting resource agency recommendations. The GAO noted that, according to most resource agency officials, they do not have the staff to conduct such studies or to conduct followup on whether their recommendations have been incorporated in the permits. The GAO also reported that, in addition to denial recommendations, the resource agencies make recommendations that permits be modified or that certain conditions be placed in permits to lessen the adverse environmental effects of the proposal. The GAO found that the districts varied in the extent to which they required applicants to modify their projects based on resource agency recommendations, with acceptance of such recommendations ranging from 58 percent to 100 percent, with a weighted average of 80 percent. The GAO observed that it appeared the Corps districts were generally willing to accept and consequently require permit modifications for changes recommended by resource agencies when the changes were concerned with the



agency area of expertise. The GAO concluded that, while recognizing the Corps district engineers must balance comments from many sources during the public comment period and this can result in the rejection of some resource agency recommendations, some Corps districts could establish more formal feedback procedures to advise resource agencies concerning the rationale behind the issuance of permits that do not include the resource agency recommendations. (pp. 47-56, p. 62/GAO Draft Report)

Now on pp. 41-48 and p. 52.

DOD RESPONSE: Concur. The Corps has very little control over the number of applications it receives each year (about 14,000 individual applications). By law the Corps must evaluate and act to some degree on each of these applications. Individual applications may range from a simple bank protection fill to a large fill involving complex environmental, socioeconomic, legal and other issues. With only about 600 project managers, whose duties include more than just evaluating applications, staff resources are not always available so that every district can accomplish the degree of coordination, feedback, and record keeping desired by the resource agencies. Much has been done through general permitting, and streamlined processing to reduce workload, but that effort must be accomplished by those same project managers. It should also be recognized that the annual number of individual applications has remained relatively stable, while the number of minor actions covered by general permits has increased, indicating an increasing number of the more difficult applications to be evaluated. The statistics about the Corps acceptance or rejection of agency recommendations do not provide any meaningful insight into the dynamics or substance of interagency coordination. Only by reviewing the relevant circumstances of each case could a reviewer decide if an agency recommendation was wrongly accepted or rejected by the Corps. In addition, Corps policy does allow district engineers to issue permits over the unresolved objections of the resource agencies, but only in accordance with the Memoranda of Agreement (MOAs) with those agencies. The MOAs provide the agencies the right to request elevation of projects; the agencies have no unilateral elevation rights.

See comment 2.

FINDING J: Infrequent Use Of Elevation And "Veto" Authority. The GAO reported that the Corps and Federal resource agencies have negotiated Memoranda of Agreement, which includes procedural guidelines by which the resource agencies refer disagreements with district engineers to higher review levels within the Department of the Army. The GAO found, however, that agencies appeal few disagreements with the Corps districts. The GAO noted that, according to resource agency officials, this is because the elevation procedures are very cumbersome and time-consuming, appeals rarely result in changes to district engineer decisions, their own agencies discourage use of the elevation authority, and most disagreements involve wetland fills of comparatively small size. The GAO further

-8-

reported that, in addition to its appeal rights, the EPA, under Section 404(c) of the Clean Water Act, has the authority to "veto" a Corps permit decision and prohibit disposal of dredged or fill material at any site it determines would have unacceptable adverse effects on municipal water supplies. The GAO found, however, that according to the EPA headquarters officials, since passage of the Clean Water Act, the agency has completed action in only five cases nationwide (with the EPA Region IV initiating three of the five veto actions). The GAO concluded that, in light of the low number of elevations by resource agencies and the general impression on their part that the process is not workable, it appears that the Corps and the resource agencies could establish a process under which differences of opinion concerning permitting decisions can be resolved. (pp. 56-63/GAO Draft Report)

Now on pp. 48-53

DOD RESPONSE: Concur. While the process provided for in the MOAs is cumbersome and time-consuming, it gives the resource agencies a powerful tool to insure that their interests are given full consideration. The threat of elevation has been an effective tool for the agencies to use in convincing applicants to modify their projects. The threat of the 404 (c) "veto" authority has also been effective in the same manner. The DOD contends the EPA and the other agencies do not make more formal use of these tools due to lack of conviction rather than lack of authority. The use of the 404 (c) "veto" earlier in the application process or in special aquatic areas before applications are even submitted, would save the Corps and the EPA considerable time spent in arguing about decisions. The development of different mechanisms for resolving differences of opinion will not resolve the basic differences between the Corps and resource agencies. Resource agencies have a narrow charter and are charged to protect the resource without consideration of the other factors that comprise the public interest. The Corps, on the other hand, must balance many factors of the public interest in making decisions about permit applications.

See comment 2.

FINDING K: Unauthorized Activities May Not Be Detected. The GAO reported that the Corps regulations authorize district engineers to conduct surveillance to detect authorized activity. The GAO found, however, that the Corps districts did not routinely perform surveillance to detect unauthorized activities, or inspect all permits to ensure that permittees adhere to permit conditions. The GAO noted that, according to officials in each of the five Corps districts visited, surveillance to detect unauthorized activities receive less priority than the permit process in their offices. In many cases, surveillance monitoring takes place only when it can be combined with some priority district activity, such as site investigations during permit processing. The GAO reported that, according to Corps officials, aerial surveillance is more efficient than ground surveillance because it covers more areas in a shorter time frame, gives access to remote areas, and avoids problems of access to private lands. The GAO further noted, however, that according to staff in each of the districts visited, aerial surveillance has been curtailed due to budget constraints. As an example, the GAO noted that according to Portland officials, the last aerial investigations in the District occurred in the spring of 1986. The GAO concluded that surveillance is not a high priority in any of the five districts visited. (pp. 64-68, p. 87/GAO Draft Report)

Now on pp. 55-58 and p. 73.

DOD RESPONSE: Concur. Surveillance and pursuit of unauthorized activities is the responsibility of the EPA. The Clean Water Act vests the Administrator of the EPA with enforcement authority for unauthorized discharges, not the Secretary of the Army, who is empowered to enforce only against permit violations. Since 1976, the Corps has agreed, as a matter of comity, to use its limited resources as the front line of enforcement for Section 404.

See comment 2.

FINDING L: Corps Investigations Of Suspected Unauthorized Activities Sometimes Delayed for Long Periods. The GAO reported that, after unauthorized fills are reported, the Corps regulations require that investigations be conducted in a timely manner to confirm whether a violation has occurred and, if so, its extent and the responsible party. While the Corps regulations do not define what would be a timely investigation of reported unauthorized activity, the GAO found that, of the 125 suspected cases of unauthorized filling in wetlands, the Corps did not investigate many cases for several weeks or even months after they were reported. Also, the GAO found that it could not determine the timeliness of 34 district investigations due to incomplete records (28 of these were in the Baltimore and Jacksonville Districts) and, in two districts, some reported unauthorized fills were not investigated at all. The GAO reported that, in its sample of 25 cases of unauthorized activities in Omaha, all of which involved wetlands, it identified about 2,000 acres of wetlands that were adversely affected as a result unpermitted activities. The GAO noted, however, that according to district officials, their personnel are primarily involved in permit processing and monitoring has received a low priority. The GAO concluded that the longer it takes to investigate suspected unpermitted activities the more likely it is that additional filling or unauthorized work will result in the loss of valuable wetlands. (pp. 68-71/GAO Draft Report)

Now on pp. 58-60.

DOD RESPONSE: Concur. As provided by the Act, the mission of the Corps is evaluating applications and enforcing against ermit violations. It is again pointed out that the EPA has the authority for acting against those who discharge without a permit. (Also see the DOD response to Finding K.)

See comment 2.

FINDING M: Limited Involvement Of The EPA In Enforcing Section 404. The GAO reported that the Clean Water Act of 1977 provided the EPA with independent enforcement authority for

-10-

unauthorized discharges and the authority was strengthened with the passage of the Water Quality Act of 1987. The GAO found, however, that to date, the EPA involvement in Section 404 enforcement activities has been selective, and has varied by the EPA region. As an example, the GAO noted that, according to the EPA Region VI officials, the Region has not had a functioning Section 404 enforcement program over the last eight years; therefore, the EPA has relied on the Corps and other agencies to carry out surveillance and enforcement. The GAO further found that, nationally, the EPA regions varied considerably in their issuance of enforcement actions pursuance o Section 404. (The GAO noted that, according to the EPA headquarters officials, they cannot provide specific information on the number of administrative orders its regions issue, but it does on aggregate enforcement actions by the regions.) The GAO further noted that, according to the EPA headquarters officials, as of February, 1988, the Corps and the EPA were developing a Memorandum of Agreement defining how their new authority for administrative penalties under the Water Quality Act will be implemented. The GAO observed the Act authorizes administrative penalties that could reach $125,000 per violation. The GAO found preliminary information indicated that the EPA has already utilized its powers to impose fines in certain areas of the country. The GAO concluded that, if properly implemented, these provisions could serve as deter- rents to violations of Section 404 requirements, especially those involving small projects; however, it is too early to judge how effective an enforcement tool this new authority will be over time. (pp. 72-73, pp. 89/GAO Draft Report)

Now on pp. 60-62 and p. 74.

DOD RESPONSE: Concur.

FINDING M: The Corps Does Not Inspect All Permits For Compliance With Conditions. The GAO reported that the Corps regulations leave inspection of permitted activities to determine compliance with permit terms and conditions to the discretion of the Corps district engineers. The GAO found, however, that the Corps districts it visited do not inspect all permitted sites, and documentation of site visits is sporadic. (The GAO noted that the projects included in its review may not have been completed at the time of the fieldwork, and some may not have been started; therefore, the projects may yet receive appropriate compliance inspections.) In addition, the GAO noted that, according to Corps officials, statistics on site inspections may be misleading because some inspection visits may not be documented--in addition, state and resources agencies may visit sites and advised the Corps of their findings, which may not be documented in the Corps files. The GAO noted, therefore, for these reasons it did not attempt to make estimates about the number of projects needing inspections.

The GAO noted the following, however, as a result of its review at the five Corps districts:

- determining whether the Baltimore sites reviewed were inspected was difficult because (1) project managers did not always maintain records of site visits, (2) the District has no specific procedures for conducting compliance inspections, and D(3) no form has to be completed for such inspections;
- the Jacksonville District infrequently inspects projects to assure compliance with permit conditions either during or after construction;
- at the Omaha Corps District, 26 inspections at the 40 projects sampled were documented--the inspections occurred on 20 projects;
- according to the Chief, Permit Evaluation Section, Portland District, a project manager's time is used to process permits rather than conduct routine permit followup inspections--however, a project manager will occasionally drive by a permitted site and, if unauthorized activity is taking place, will file a complaint report; and
- the Regulatory Branch Chief of the Vicksburg District indicated the District does not have the staff resources or the funds to carry out compliance inspections routinely.

The GAO concluded that, if the Corps and the EPA better coordinated their combined resources, they could bring about a more comprehensive and systematic monitoring and enforcement effort. (pp. 74-78, p. 88/GAO Draft Report)

Now on pp. 62-65 and p. 73.

DOD RESPONSE: Concur. A combination of the Corps and EPA enforcement resources would not, however, be sufficient to handle an inspection and after action followup for every permitted activity. An estimated 30,000 individually permited actions (Section 10 and/or Section 404) are in an authorized construction period at any given time. The logistics and cost of inspecting each of these would be considerable, given that the Corps has only about 150 enforcement project managers, and the EPA much less. While the Corps has statutory enforcement authority for these types of actions, it has also agreed to carry most of the load for unauthorized activities, as well, thus dividing and overloading its enforcement resources. Those same Corps enforcement project managers must also provide support for making jurisdiction determinations and other regulatory related duties, all of which continue to increase in number and complexity. The DOD contends that the Corps does as much as hould be expected with the limited resources available.

See comment 2.

FINDING O: Corps Districts Use Administrative Rather Than Civil And Criminal Remedies Even When Violations Appear Serious. The GAO reported that the Corps district engineers have several options they can pursue after it is established unauthorized activities have taken place, as follows:

- negotiate restoration or mitigation agreements;
- issue after-the-fact permit; or
- seek administrative, civil or criminal remedies.

The GAO found that, in pursuing its enforcement responsibilities, the Corps districts and the EPA rarely used available civil and criminal remedies including administrative penalties, referring instead to rely on the voluntary actions of violators to rectify the problems observed. The GAO also found this true even with some of the more serious violations. The GAO noted, in part, the following comments by the Corps district officials or other districts concerning the rationale for relying on administrative rather than legal remedies when violations are detected:

- according to a U.S. attorney who coordinates Baltimore Corps District legal activities in Maryland, no cases have been forwarded to them by the district for formal prosecution and/or litigation in the past 5 years--a process called "minor listing" has, instead, become the standard method that the Baltimore District uses to deal with unpermitted fill violations;
- Jacksonville District regulatory personnel refer potential legal actions to the District Counsel after they have exhausted all other means to obtain voluntary compliance;
- in pursuing its enforcement responsibilities, the Omaha District has seldom used available civil and criminal remedies or administrative penalties--in most cases the district has obtained compliance through administrative means, such as voluntary restoration, rather than resorting to legal action.
- District officials in Portland, including the District Enforcement Office, the Special Assistant to the U.S. Attorney, and the project managers, all believe that there is little or no incentive to seek civil or criminal penalties--fines have not been levied by the District since 1981; and
- according to the Regulatory Branch Chief of the Vicksburg District, the practice of the District has been to continue the use of administrative means to resolve enforcement problems, even when violators are uncooperative.

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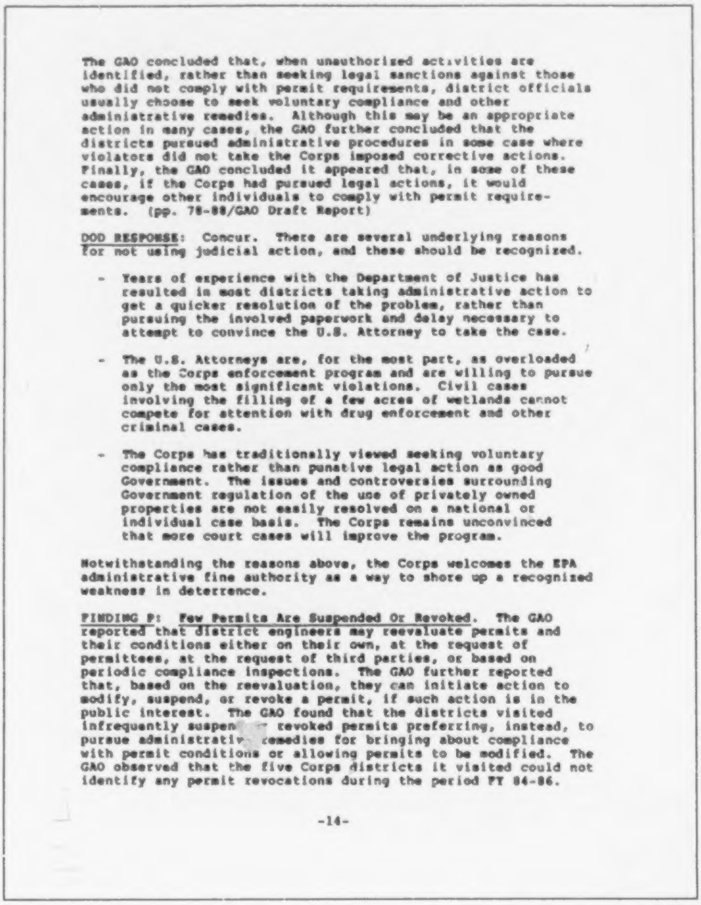


The GAO concluded that, when unauthorized activities are identified, rather than seeking legal sanctions against those who did not comply with permit requirements, district officials usually choose to seek voluntary compliance and other administrative remedies. Although this may be an appropriate action in many cases, the GAO further concluded that the districts pursued administrative procedures in some case where violators did not take the Corps imposed corrective actions. Finally, the GAO concluded it appeared that, in some of these cases, if the Corps had pursued legal actions, it would encourage other individuals to comply with permit requirements. (pp. 78-88/GAO Draft Report)

Now on pp. 65-73.

DOD RESPONSE: Concur. There are several underlying reasons for not using judicial action, and these should be recognized.

- Years of experience with the Department of Justice has resulted in most districts taking administrative action to get a quicker resolution of the problem, rather than pursuing the involved paperwork and delay necessary to attempt to convince the U.S. Attorney to take the case.
- The U.S. Attorneys are, for the most part, as overloaded as the Corps enforcement program and are willing to pursue only the most significant violations. Civil cases involving the filling of a few acres of wetlands cannot compete for attention with drug enforcement and other criminal cases.
- The Corps has traditionally viewed seeking voluntary compliance rather than punative legal action as good Government. The issues and controversies surrounding Government regulation of the use of privately owned properties are not easily resolved on a national or individual case basis. The Corps remains unconvinced that more court cases will improve the program.

See comment 2.

Notwithstanding the reasons above, the Corps welcomes the EPA administrative fine authority as a way to shore up a recognized weakness in deterrence.

FINDING F: Few Permits Are Suspended Or Revoked. The GAO reported that district engineers may reevaluate permits and their conditions either on their own, at the request of permittees, at the request of third parties, or based on periodic compliance inspections. The GAO further reported that, based on the reevaluation, they can initiate action to modify, suspend, or revoke a permit, if such action is in the public interest. The GAO found that the districts visited infrequently suspended or revoked permits preferring, instead, to pursue administrative remedies for bringing about compliance with permit conditions or allowing permits to be modified. The GAO observed that the five Corps districts it visited could not identify any permit revocations during the period FY 84-86.

The GAO concluded that part of the explanation for the low number suspensions and revocations could be the lack of routine compliance inspections by the Corps districts to determine if permittees are adhering to permit conditions. The GAO further concluded that without such inspections, it would be difficult to substantiate suspension or revocation actions. (pp. 87-89/GAO Draft Report)

Now on pp. 73-74.

DOD RESPONSE: Concur. (See also DOD Response to Finding O.)

RECOMMENDATIONS

RECOMMENDATION 1: The GAO recommended that the Secretary of the Army direct the Chief, Corps of Engineers, to develop a data reporting mechanism to enable the Corps to provide baseline information on the extent to which the granting of Section 404 permits is protecting or resulting in the filling of wetlands, and otherwise restoring and maintaining the integrity of the nation's waters. (p. 40/GAO Draft Report)

Now on p. 33.

DOD RESPONSE: Nonconcur. A study to provide a baseline assessment of the Section 404 program's performance in wetland protection/use and maintaining water quality cannot be done on a realistic or cost effective basis.

Such a study would have to take into consideration a wide variety of factors that are difficult to describe and quantify much less measure. For example, the very existence of the program produces wetland preservation that cannot be measured. One denial of a permit to fill coastal wetlands for say housing, puts restraints on the development community on similar projects at other locations. No applications will be filed for these other projects for the Corps to measure against. To report only the acreage for the denied permit would be misleading. While the footprint acreage of fills allowed under individual permits could be measured, this too would be misleading. Most permits result in secondary impacts that either enhance, create, harm or destroy other wetland acreage. For example a flood control dike may enable a landowner to clear and farm on an unknown acreage of bottomland hardwoods that can be removed without triggering 404. A water supply reservoir with a 404 permit may eventually produce fringe wetlands. As the report notes, most wetlands are lost through unregulated activities, a factor which must be included in any evaluation of the performance of the 404 program.

See comment 2.

Enforcement actions have similar spin off effects that are not readily identified or captured as meaningful statistics. Other actions have been exempted by Section 404 (f) or 404 (r) of the Act. Still others occur under general permits, which for the most part do not require reporting, as the permits are designed to reduce paperwork under 101 (f) and 404 (q).

Finally, EPA would have to keep track of other wetland effects when the program is transferred to the states under Sections 404 (g) through (l), or through agency action pursuant to 404 (c) and EPA's advanced identification program.

Water quality impacts of 404 activities are even more difficult to describe and measure than the acreages of wetland impacts. Considerable new research would be needed just to initiate such a study in this area.

Implementation of this recommendation could not be accomplished with the resources available to the Corps regulatory program. As discussed in the responses to Findings I, K, and N, the Corps regulatory staff is at a minimum available to accomplish the current mission, and is in fact struggling in the face of an increasing work load. To charge that program with an increased mission for monitoring the program's impacts is an unrealistic expectation. The Congress recently singled out the Corps regulatory budget as one which could not be augmented by funds from other Corps sources, so to expect the program to bear the cost of such monitoring is also unreasonable. Finally the return for dollars spent to develop and operate such a monitoring program would be minimal. The information generated by the monitoring program would not address the broader issues associated with wetland loss, because of the focus on the Corps regulatory program.

Now on p. 33

RECOMMENDATION 2: The GAO recommended that the Secretary of the Army direct the Chief, Corps of Engineers, to work with the resource agencies to develop consistent definitions and procedures for implementing basic program requirements, such as considering practicable alternatives, assessing cumulative impacts, and making wetland delineations. (p. 40/GAO Draft Report)

See comment 2

DOD RESPONSE: Concur. The Corps and Federal resource agencies headquarters staff meet periodically to discuss current issues and program initiatives. Within the next three months a meeting will be held to jointly decide what can be done to better address the issues highlighted by the report.

Now on p. 53

RECOMMENDATION 3: The GAO recommended that the Secretary of the Army direct the Chief, Corps of Engineers, to work with the resource agencies to develop a feedback mechanism to provide the resource agencies with documentation to show how their recommendations were addressed during the application review process and, where applicable, reasons why recommendations were not accepted. (p. 63/GAO Draft Report)

See comment 2

DOD RESPONSE: Concur. Feedback mechanisms are already in place. The Corps permit documentation includes information on how substantive agency comments were considered during the decision process. Agencies may review these documents at all district offices. It should be noted, however, that often during the review of unfimiliar permit documents investigators do not recognize changes in projects that were made as a result of agency comments. Sometimes this leads to the conclusion that no action was taken on an agency comment, when in fact the project drawings or description may reflect a change that responded to the comment. The Corps recognizes that documentation of, and providing the rationale for, rejecting comments or suggestions is important. At a minimum, such things are often the subject of contention in legal proceedings. However, in view of the constraints and limitations inherent in the program, time is not always available to highlight such items. The current system allows agencies to use their own initiative to explore how comments were viewed on non-objectionable permits. The MOAs provide the agencies both an informal and a formal review of how comments are considered during the elevation process. Such feedback mechanism is time consuming and requires considerable staff and clerical work. However, it is available now. To extend the same consideration to all actions adds to the already difficult job of the Corps project manager (as discussed in the DOD response to Finding I.)

Now on p. 53

RECOMMENDATION 4: The GAO recommended that the Secretary of the Army direct the Chief, Corps of Engineers to develop, with the participation of the resource agencies, mutually acceptable and simplified process under which district engineer permitting decisions can be appealed. (p. 63/GAO Draft Report)

See comment 2

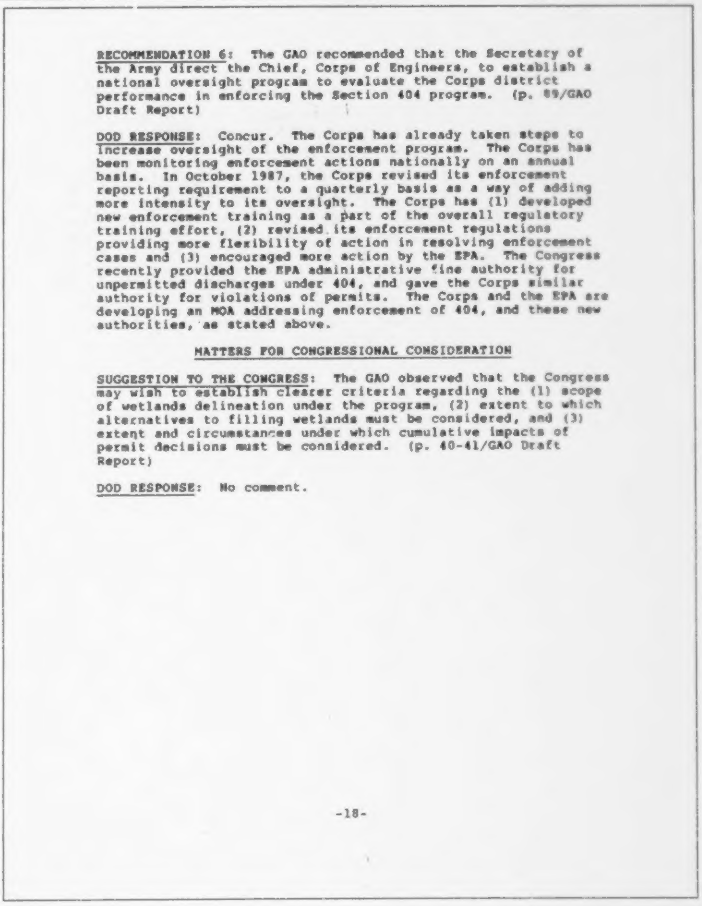
DOD RESPONSE: Concur. The current procedure provides for a formally structured appeal process. As one option, the Corps would propose eliminating the formal MOA appeal process and substitute in its stead a more informal process based on joint agency guidance documents. Other options to be considered include issuance of joint agency guidance on the current MOAs and/or revisions to the current MOAs. Dialogue has already started with the EPA. The Corps also will approach the other resource agencies as indicated in the DOD response to Recommendation 2.

Now on p. 74

RECOMMENDATION 5: The GAO recommended that the Secretary of the Army direct the Chief, Corps of Engineers, to develop, with the participation of the EPA, a coordinated enforcement program utilizing the combined resources of both agencies and others to deal with violations of Section 404 permit requirements. (The GAO suggested such a program should involve routine surveillance, compliance, inspections, and timely investigations and reporting of unauthorized activities. p. 89/GAO Draft Report)

See comment 2

DOD RESPONSE: Concur. The Corps supports the need for a better use of the Corps and the EPA resources in enforcing the program. The Corps and the EPA are working on an enforcement MOA to better define the role of each agency. That effort should be complete in the next three months. (Also see the DOD responses to Findings K, L, M, N and O.)



Now on p. 74.

RECOMMENDATION 6: The GAO recommended that the Secretary of the Army direct the Chief, Corps of Engineers, to establish a national oversight program to evaluate the Corps district performance in enforcing the Section 404 program. (p. 89/GAO Draft Report)

See comment 2.

DOD RESPONSE: Concur. The Corps has already taken steps to increase oversight of the enforcement program. The Corps has been monitoring enforcement actions nationally on an annual basis. In October 1987, the Corps revised its enforcement reporting requirement to a quarterly basis as a way of adding more intensity to its oversight. The Corps has (1) developed new enforcement training as a part of the overall regulatory training effort, (2) revised its enforcement regulations providing more flexibility of action in resolving enforcement cases and (3) encouraged more action by the EPA. The Congress recently provided the EPA administrative fine authority for unpermitted discharges under 404, and gave the Corps similar authority for violations of permits. The Corps and the EPA are developing an MOA addressing enforcement of 404, and these new authorities, as stated above.

MATTERS FOR CONGRESSIONAL CONSIDERATION

Now on p. 33.

SUGGESTION TO THE CONGRESS: The GAO observed that the Congress may wish to establish clearer criteria regarding the (1) scope of wetlands delineation under the program, (2) extent to which alternatives to filling wetlands must be considered, and (3) extent and circumstances under which cumulative impacts of permit decisions must be considered. (p. 40-41/GAO Draft Report)

DOD RESPONSE: No comment.

The following are GAO's comments on the Department of Defense's letter dated June 9, 1988.

GAO Comments

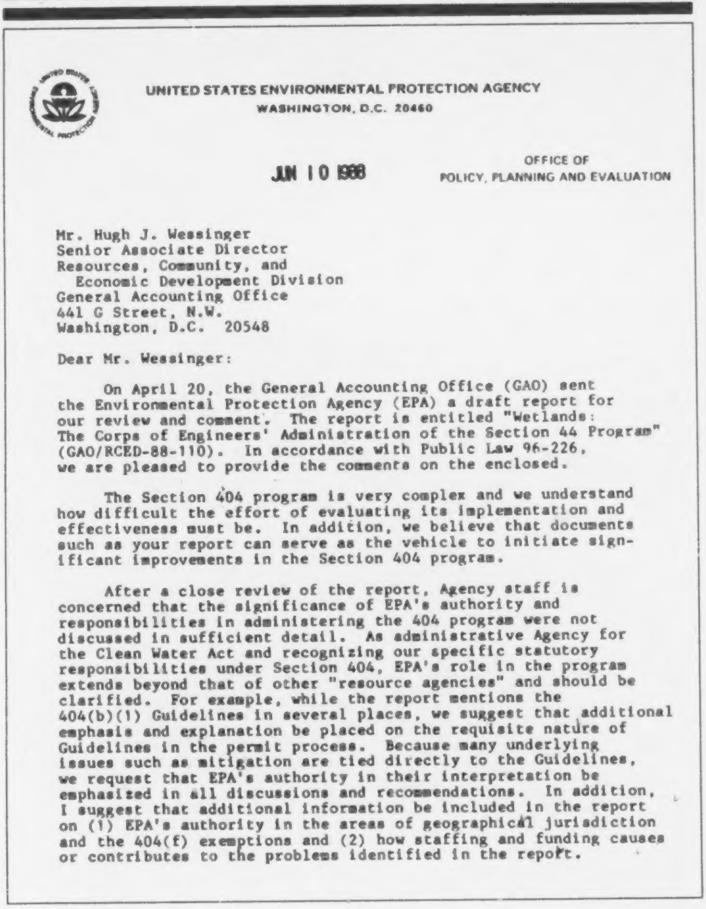
1. We have revised the pages noted to clarify EPA's responsibility for enforcement against unauthorized discharges. As was indicated in our draft report, the estimates of annual wetlands losses were obtained from various resource agency sources. The Fish and Wildlife Service estimate of 458,000 acres, which incidentally falls within the 300,000 to 500,000 acre estimate, was followed up with the Fish and Wildlife Service. An FWS official told us in October 1987 that the 458,000 acre figure, which was only an estimate, is the latest and best estimate of wetlands lost.

2. We have revised the report in order to reflect these comments. In some cases we have added GAO's position on the Department of Defense's comments at the end of the appropriate chapter.

Appendix III

Comments From the Environmental Protection Agency

Note: GAO comments supplementing those in the report text appear at the end of this appendix.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 10 1988

OFFICE OF
POLICY, PLANNING AND EVALUATION

Mr. Hugh J. Wessinger
Senior Associate Director
Resources, Community, and
Economic Development Division
General Accounting Office
441 G Street, N.W.
Washington, D.C. 20548

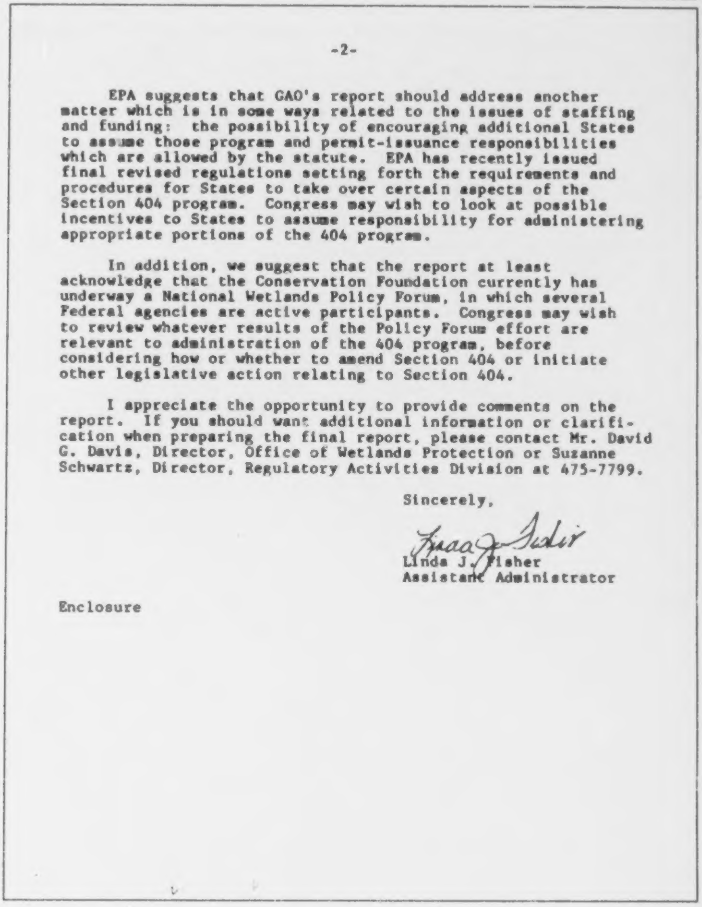
Dear Mr. Wessinger:

On April 20, the General Accounting Office (GAO) sent the Environmental Protection Agency (EPA) a draft report for our review and comment. The report is entitled "Wetlands: The Corps of Engineers' Administration of the Section 44 Program" (GAO/RCED-88-110). In accordance with Public Law 96-226, we are pleased to provide the comments on the enclosed.

The Section 404 program is very complex and we understand how difficult the effort of evaluating its implementation and effectiveness must be. In addition, we believe that documents such as your report can serve as the vehicle to initiate significant improvements in the Section 404 program.

See comment 1.

After a close review of the report, Agency staff is concerned that the significance of EPA's authority and responsibilities in administering the 404 program were not discussed in sufficient detail. As administrative Agency for the Clean Water Act and recognizing our specific statutory responsibilities under Section 404, EPA's role in the program extends beyond that of other "resource agencies" and should be clarified. For example, while the report mentions the 404(b)(1) Guidelines in several places, we suggest that additional emphasis and explanation be placed on the requisite nature of Guidelines in the permit process. Because many underlying issues such as mitigation are tied directly to the Guidelines, we request that EPA's authority in their interpretation be emphasized in all discussions and recommendations. In addition, I suggest that additional information be included in the report on (1) EPA's authority in the areas of geographical jurisdiction and the 404(f) exemptions and (2) how staffing and funding causes or contributes to the problems identified in the report.



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See comment 2.

EPA suggests that GAO's report should address another matter which is in some ways related to the issues of staffing and funding: the possibility of encouraging additional States to assume those program and permit-issuance responsibilities which are allowed by the statute. EPA has recently issued final revised regulations setting forth the requirements and procedures for States to take over certain aspects of the Section 404 program. Congress may wish to look at possible incentives to States to assume responsibility for administering appropriate portions of the 404 program.

See comment 2.

In addition, we suggest that the report at least acknowledge that the Conservation Foundation currently has underway a National Wetlands Policy Forum, in which several Federal agencies are active participants. Congress may wish to review whatever results of the Policy Forum effort are relevant to administration of the 404 program, before considering how or whether to amend Section 404 or initiate other legislative action relating to Section 404.

I appreciate the opportunity to provide comments on the report. If you should want additional information or clarification when preparing the final report, please contact Mr. David G. Davis, Director, Office of Wetlands Protection or Suzanne Schwartz, Director, Regulatory Activities Division at 475-7799.

Sincerely,

Linda J. Fisher
Assistant Administrator

Enclosure

Environmental Protection Agency
GAO Draft Report Comments

	Page No.	Paragraph No.	Comments
Now on p. 2, paragraph 5. See comment 3.	3	2	Emphasis on the requisite nature of the Guidelines should be added in this paragraph(see comments for page 13, paragraph 2).
Now on p. 3, paragraph 5. See comment 3.	4	4	This paragraph should address the most recent efforts of EPA and the Corps in the area of enforcement. Further, funding and manpower, both of which significantly impact the enforcement effort, should be mentioned.
Now on p. 4, paragraph 1. See comment 3.	5	2	This paragraph should distinguish between activities not regulated because they involve no discharge, and those activities which are exempt. Not all normal farming, ranching, draining etc. activities are exempt. Reference the 404(f)(2) recapture clause.
Now on p. 4, paragraph 2. See comment 4.	5	3	Other major areas of disagreement such as "mitigation" and the "definition of fill material" should be mentioned.
Now on p. 4, paragraph 5. See comment 5.	7	4	Recommendations should include the development and utilization of a clearer definition of EPA's and the Corps authorities and responsibilities in the 404 program. Item 2 should include the topics of mitigation and the definition of fill. Recommendations throughout the report generally, do not accurately reflect the roles of EPA and the Corps. Final resolution must clearly be based on the authority and responsibilities of the respective agencies.
Now on p. 5, paragraph 1. See comment 6.	8	1	A recommendation that both the Corps and EPA more fully implement their

statutory enforcement responsibility in the area of unpermitted discharges and permit condition violations should be included in this report.

Now on p. 5, paragraph 2.

See comment 4.

8 2 The authority to interpret the Guidelines, develop mitigation policy and how to apply the definition of fill may be matters that Congress should also consider. These issues play a significant role in protection of wetland resources.

Now on p. 8, paragraph 4.

See comment 7

12 1 The definition of "fill material" used by GAO is the Corps. EPA's definition states, "fill material means any 'pollutant' which replaces portions of the 'waters of the United States' with dry land or which changes the bottom elevation of a waterbody for any purpose." The significant difference is the Corps "primary purpose" and EPA's "any purpose". The Corps definition does not include pollutants discharged into the water primarily to dispose of waste. The level of protection afforded the waters of the United States is, in many cases, directly related to which definition is utilized. The GAO report should consider in some detail the impact that the Corps current "fill" policies and regulations have on protecting wetland resources. Issues such as instream treatment and the discharge of pre-cast concrete pilings could possibly be resolved by broader application of the term "fill material."

Now on p. 9, paragraph 1.

See comment 2.

12 2 In reference to the 404(f) exemptions (first four items) the report should mention that many of the activities listed are subject to the 404(f)(2) 'Recapture' clause. 404(f)(2) states," Any discharge of dredged or fill material into the navigable waters incidental to any activity having as its purpose

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bringing an area of the navigable waters into a use to which it was not previously subject, where the flow or circulation of navigable waters may be impaired or the reach of such waters be reduced, shall be required to have permit under this section."

Now on p. 9, paragraphs 4-5.

See comment 8.

13 1,2 Since EPA has statutory responsibility to administer the Clean Water Act, including specific authority under Section 404, EPA's role in the program should be emphasized in this section. Grouping EPA with the other "resource agencies" is not an accurate reflection of the level of responsibility EPA has in the administration of the 404 program.

Now on p. 9, paragraph 5.

See comment 9.

13 2 In terms of environmental protection the 404(b)(1) Guidelines are the cornerstone of the 404 program. The fundamental precepts of the Guidelines are that dredged or fill material should not be discharged into the aquatic ecosystem unless it can be demonstrated that (1) such a discharge will not have an unacceptable adverse impact either alone or when viewed in terms of its cumulative impact on wetlands or other waters, and (2) there are no less environmentally damaging practicable alternatives. The Guidelines further require that no discharge should be permitted unless appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem. In light of the above the report should clearly recognize that the Guidelines are regulatory in nature and establish an environmental basis for permit denial. Further, EPA's authority to interpret the Guidelines should be mentioned in this section as many underlying problems have resulted from different interpretations by the

Corps and EPA.

Now on p. 11, paragraph 1.

See comment 10.

14 4 The Corps Regulations state that no permit will be issued unless the proposed discharge complies with the 404(b)(1) Guidelines. The balancing process used by the Corps does not obviate the requirements to comply with the Guidelines.

Now on p. 11, paragraph 4.

See comment 11.

15 4 If, as the report implies, the Corps uses only the "three general criteria" then they are not in compliance with their own Regulations which require that discharges comply with the 404(b)(1) Guidelines. The failure to emphasize what is arguably the single most important element of the 404 program, the Guidelines, is a serious concern of EPA's.

Now on p. 19, paragraph 3.

See comment 2.

24 3 The 404(f)(2) recapture clause precludes the exemption of many wetlands conversions. EPA's authority to interpret the scope of 404(f) exemptions should be discussed. The 1979 legal opinion by Attorney General Benjamin Civiletti clearly established EPA as the authority in these matters.

Now on p. 23, paragraph 3.

See comment 2.

30 1 Additional major items such as "mitigation" and the "definition of fill" directly impact the level at which 404 protects wetlands. An example is the Corps/EPA disagreement on the sequence of mitigation. EPA has taken the position (and other resource agencies have concurred) that mitigation should occur in the sequence of avoidance first, then minimization and lastly compensation of unavoidable impacts. EPA considers the specific elements to represent the required sequence of steps in the mitigation planning process as it relates to the Section 404 Program and adheres to the requirements set forth in the 404(b)(1) Guidelines. The Corps has

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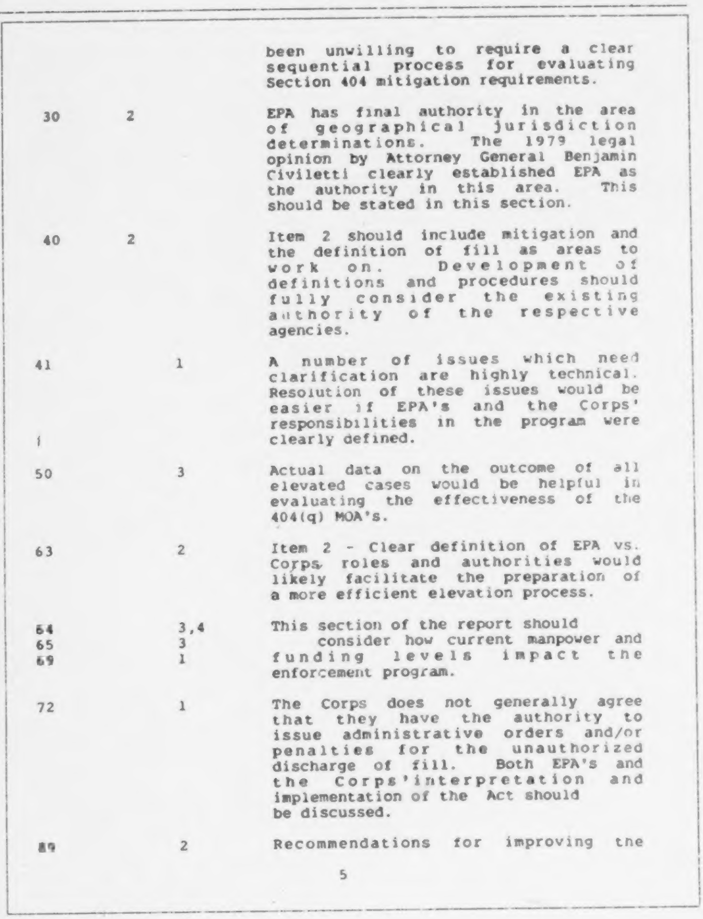


			been unwilling to require a clear sequential process for evaluating Section 404 mitigation requirements.
Now on p. 23, paragraph 4. See comment 2.	30	2	EPA has final authority in the area of geographical jurisdiction determinations. The 1979 legal opinion by Attorney General Benjamin Civiletti clearly established EPA as the authority in this area. This should be stated in this section.
Now on p. 34, paragraph 1. See comments 2 and 7.	40	2	Item 2 should include mitigation and the definition of fill as areas to work on. Development of definitions and procedures should fully consider the existing authority of the respective agencies.
Now on p. 33, paragraph 3.	41	1	A number of issues which need clarification are highly technical. Resolution of these issues would be easier if EPA's and the Corps' responsibilities in the program were clearly defined.
Now on p. 43, paragraph 2. See comment 12.	50	3	Actual data on the outcome of all elevated cases would be helpful in evaluating the effectiveness of the 404(q) MOA's.
Now on p. 53, paragraph 3. See comment 2.	63	2	Item 2 - Clear definition of EPA vs. Corps, roles and authorities would likely facilitate the preparation of a more efficient elevation process.
Now on p. 55, paragraph 3, p. 56, paragraph 2, and p. 58, paragraph 3. See comment 2.	64 65 69	3,4 3 1	This section of the report should consider how current manpower and funding levels impact the enforcement program.
Now on p. 60, paragraph 3. See comment 1.	72	1	The Corps does not generally agree that they have the authority to issue administrative orders and/or penalties for the unauthorized discharge of fill. Both EPA's and the Corps'interpretation and implementation of the Act should be discussed.
Now on p. 74, paragraph 3.	89	2	Recommendations for improving the

See comment 2

404 program should include clear directions for increasing the emphasis on enforcement. It is important to note that most enforcement actions are extremely time and resource intensive.

In addition, any comprehensive surveillance program would be both difficult and highly resource intensive. Thus, within existing resources, any significant increase in enforcement activity may result in a decrease in some other program activity such as permit processing. However, specific emphasis on increasing surveillance and compliance inspections should be included. Production of quality, well documented decisions and adjustment of existing resources into the enforcement area should also be recommended.

The following are GAO's comments on EPA's letter dated June 10, 1988.

GAO Comments

1. We have revised the report in several places to clarify EPA's and the Corps' authorities and responsibilities in administering the Section 404 program.

2. We have included the suggested discussion in the report.

3. The suggested language is included in the report chapter discussion.

4. We have included a discussion of the suggested material in the report.

5. We believe that our recommendations accurately reflect the authority and responsibility of EPA and the Corps. Our recommendations, although directed to the Secretary of the Army, include numerous references to the need to involve resource agencies in corrective action and, in the case of the recommendation to develop a coordinated enforcement program, specific reference is made to EPA's prominent role.

6. We believe that this is the thrust of our recommendation for developing a coordinated enforcement program utilizing the combined resources of the Corps and EPA.

7. We have clarified the report to indicate that the definition of "fill material" used is the Corps' definition. However, it should be noted that the 404(b)(1) Guidelines, as developed by EPA, reserved Section 230.3(l) of the Guidelines for EPA's definition of fill material in order to cooperate with the Corps in resolving the Corps' concerns about such a definition. Our discussion of resource agency concerns about the Corps' narrow interpretation of certain key provisions in the administration of the Section 404 program was not intended to be all-inclusive. Concerns regarding requirements for mitigation and the definition of fill material are issues that could be included in future Corps and resource agency deliberations.

8. We state that EPA is perhaps the most influential of the federal resource agencies and further describe its authorities and responsibilities throughout the report. We believe that the discussion of EPA's authorities and responsibilities, including revisions incorporated to respond to EPA's comments on a draft of this report, accurately reflects the level of EPA involvement in the Section 404 program.

9. We have included further discussion of the 404(b)(1) Guidelines in the report. Although we do not question EPA's authority to interpret the Guidelines, we call attention to the following statement in the Preamble to the Guidelines:

> "The fact that EPA has 404(c) authority does not lessen EPA's responsibilities for developing the 404(b)(1) Guidelines for use by the permitting authority. Indeed, if the Guidelines are properly applied, EPA will rarely have to use its 404(c) veto."

As we point out in the report, since passage of the Clean Water Act, EPA had completed 404(c) action only five times nationwide. Hence, one might assume that EPA has generally been satisfied with the Corps' application of the Guidelines. However, we discuss several reasons why the resource agencies, including EPA, have not been entirely satisfied with the Corps' application of the Guidelines.

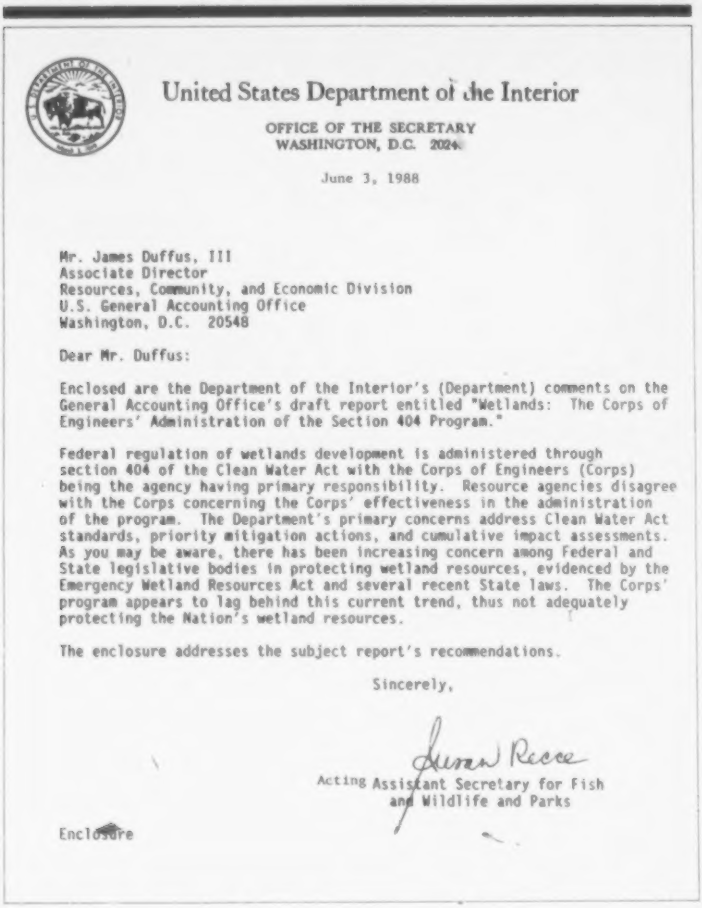
10. We have revised the report to indicate that the Corps conducts the 404(b)(1) Guidelines evaluation simultaneously with the public interest review.

11. We have revised this paragraph to show that in addition to consideration of the three general criteria, the Corps evaluates applications using the 404(b)(1) Guidelines.

12. As the Corps states in its comments on page 97, information concerning its consideration of resource agency comments is available at all Corps districts, and the agencies can avail themselves of this information.

Comments From the Department of the Interior

Note: GAO comments supplementing those in the report text appear at the end of this appendix.



United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 2024

June 3, 1988

Mr. James Duffus, III
Associate Director
Resources, Community, and Economic Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Duffus:

Enclosed are the Department of the Interior's (Department) comments on the General Accounting Office's draft report entitled "Wetlands: The Corps of Engineers' Administration of the Section 404 Program."

Federal regulation of wetlands development is administered through section 404 of the Clean Water Act with the Corps of Engineers (Corps) being the agency having primary responsibility. Resource agencies disagree with the Corps concerning the Corps' effectiveness in the administration of the program. The Department's primary concerns address Clean Water Act standards, priority mitigation actions, and cumulative impact assessments. As you may be aware, there has been increasing concern among Federal and State legislative bodies in protecting wetland resources, evidenced by the Emergency Wetland Resources Act and several recent State laws. The Corps' program appears to lag behind this current trend, thus not adequately protecting the Nation's wetland resources.

The enclosure addresses the subject report's recommendations.

Sincerely,

Susan Recce

Acting Assistant Secretary for Fish
and Wildlife and Parks

Enclosure

Department of the Interior
Comments on the Draft Report Entitled "Wetlands: The Corps of Engineers' Administration of the Section 404 Program" (GAO/RCED-88-110)

General Comments

The subject draft report is, in our opinion, an accurate analysis of the section 404 program as it is administered by the U.S. Army Corps of Engineers (Corps). As the report points out, numerous policy differences exist between the Corps and the Federal resource agencies, including the U.S. Fish and Wildlife Service (Service). As the report notes, the result of these policy differences is that the Corps' program is less effective in protecting wetlands than the Service would like it to be.

The report correctly states that the intent of the Clean Water Act is to restore and maintain the chemical, biological, and physical integrity of the waters of the United States. The Corps was given the responsibility to administer the program by issuing permits for the deposition of dredged or fill material in waters of the United States, which include many wetlands.

Specific Comments

The 404 (b)(1) Guidelines (40 CFR 230)

The primary goal of the Clean Water Act, to restore and maintain the waters of the United States, appears diminished by the manner in which the Corps evaluates permit applications to discharge fill material into wetlands. Issuance of permits for filling in waters of the United States should be consistent with the provisions of the 404 (b)(1) Guidelines (Guidelines) prepared by the Environmental Protection Agency. Since these are only Guidelines the Corps does not strictly adhere to them as a threshold determination prior to permit issuance. Rather, the Corps exercises more of a "public or economic interest determination" as authorized by 33 CFR 323. Thus, the goal of the Clean Water Act to restore and maintain the Nation's water quality involves a variety of other considerations.

The 404 (b)(1) Guidelines were adopted under the Clean Water Act and are therefore the appropriate standards to apply to permit applications. The Guidelines specifically prohibit discharges that will cause or contribute to significant degradation of the waters (including wetlands) of the United States. The Guidelines specifically monitor wetlands of areas in which degradation or destruction may represent an irreversible loss of valuable aquatic resources 40 CFR 320.1(d). In order to meet this high standard of protection for wetlands the Service supports a goal of "no net loss" of valuable wetland habitat.

2

Mitigation

The Service makes its resource protection recommendations to the Corps based upon established criteria. In most cases the Service recommends a goal of "no net loss" of habitat value. The Service believes its recommendations are consistent with the Clean Water Act and 404(b)(1) provisions to protect and restore wetlands.

The Service has adopted the definition of mitigation developed by the President's Council on Environmental Quality. This definition, contained in 40 CFR 1508.20, provides the various techniques for minimizing or eliminating adverse environmental impacts. Consistent with the intent of the Clean Water Act, the most environmentally sound technique is to avoid impacts. If such technique is not possible, the second most effective measure is to minimize impacts; the third and fourth to eliminate impacts over time. The least protective technique is to compensate for unavoidable impacts and, although some degree of protection is afforded, it is nonetheless a substitute. Unfortunately this last step, which usually involves creating or improving habitat, is what many people limit their efforts to when they address mitigation.

Compensating for impacts by creating substitute habitats is a relatively new and unproven technique that should be considered as experimental and used carefully. Avoiding impacts wherever possible is the surest way to protect valuable fish and wildlife habitats. The Corps has not consistently applied mitigation with emphasis on the most protective techniques. The Corps has too quickly moved to compensation, which should be a last resort to achieve the Service's "no net loss" goal.

Cumulative Impacts

The Service believes, the intent of the National Environmental Policy Act and other Federal laws that mandate consideration of cumulative impacts is not simply to assess cumulative impacts, but rather to evaluate development proposals "in context" so that cumulative impacts can be avoided through the appropriate design, citing, timing, and operation of projects. The context of project evaluation is determined by establishing appropriate geographical boundaries and timeframes (extended into the "reasonably foreseeable future"), and then by analyzing resource and development trends and status.

It is a general misconception that an impact only becomes cumulatively significant when the next increment of habitat degradation will precipitate environmental disaster. That idea is inappropriate under 40 CFR 230.11 (g). It is incorrect to assume that we can identify clearly and with confidence the various factors limiting a population. We cannot continue to eliminate supposedly non-critical components of the ecosystem until the assumed critical point is reached.

A key problem with the Corps' approach to cumulative impact assessment and management appears to be the absence of resource goals for its program with which to compare the results of resource trend and status analysis. The public interest review that the Corps conducts generally does not reflect any goal to restore and maintain the Nation's water resources, as mandated by the Clean Water Act.

Recommendations

The following recommendations would greatly improve the effectiveness of the section 404 program in protecting wetlands:

See comment 1

1. To reduce workload and allow the Corps to focus on priority issues, the Corps should issue "general denials" for categories of activities that are universally contrary to the Clean Water Act (e.g., filling special aquatic sites for non-water dependent purposes). This approach would be similar to the Corps' current "general permission" for activities determined consistent with the intent of the Act.

See comment 2

2. Enforcement should be made a higher priority by the Corps. The current approach described in the report of not looking for illegal or unauthorized activities because of the administrative burden should be changed. It is not consistent with the level of emphasis implied by their regulations contained in 33 CFR 326. Current activities by the Service regarding mitigation followup should provide assistance to the Corps in this area. The Corps may also need to realign its current resources or seek additional ones for the effort to be effective.

See comment 3

3. The Corps should more aggressively adopt the goal of the Clean Water Act to restore and maintain the waters of the United States as the foundation upon which the entire section 404 permit program is based. Although incorporated in 33 CFR 323.6, the 404 (b)(1) Guidelines should be applied as a threshold determination rather than as a lesser weighted component of the public interest and economic analysis.

See comment 4

4. The Federal resource agencies should continue to work together to develop a method of wetland delineation that is scientifically defensible and that reflects the goals of the Clean Water Act, which is necessary to ensure that the Corps receives uniform and current information.

See comment 5

5. A reasonable appeal process is needed that focuses dialogue on the goals of the Clean Water Act, rather than on the public interest review conducted by the Corps.

The following are GAO's comments on the Department of the Interior's letter dated June 3, 1988.

GAO Comments

1. We believe that the current EPA effort to conduct advanced identification studies offers an opportunity to achieve the intent of this Interior Department recommendation. Under this approach, areas are identified as unsuitable for a potential discharge site, thus indicating to applicants that they would have a relatively difficult time qualifying for a permit. Such advance notice has the advantage of facilitating applicant planning.

2. We agree that enforcement of the Section 404 program must receive greater emphasis, and that is the thrust of our recommendation to the Secretary of the Army to develop, with the cooperation of EPA, a coordinated enforcement program. This may, as Interior states, require the Corps to realign its current resources.

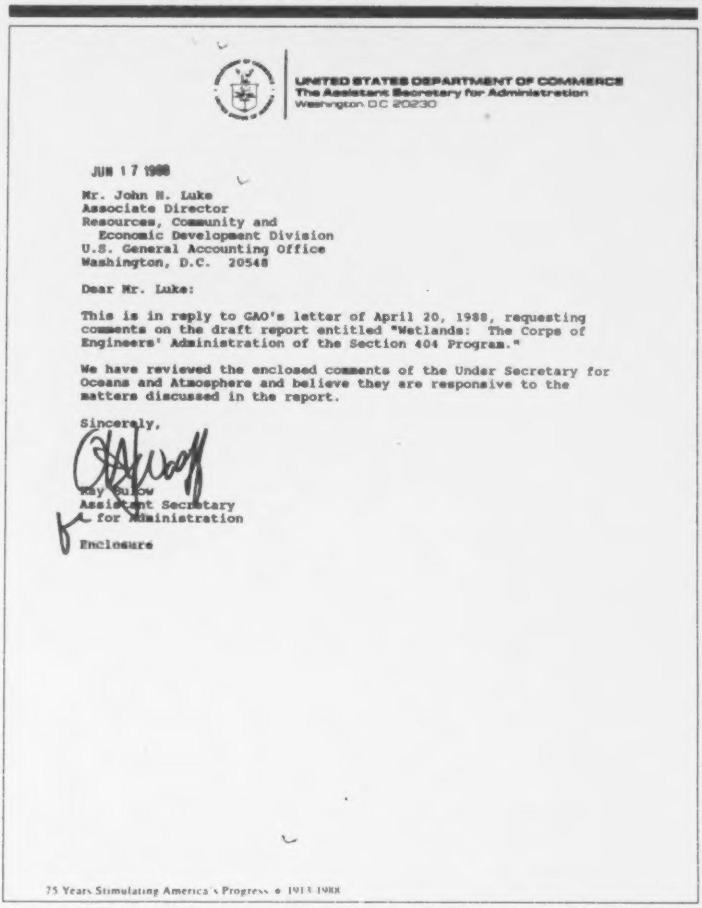
3. We have recognized in the final report that the Corps conducts its public interest review and the 404(b)(1) Guidelines evaluation simultaneously and that the selection of sites for disposal of dredged and fill material must be in accordance with the Guidelines.

4. We believe that this recommendation is similar to our recommendation to the Secretary of the Army that he direct the Corps to work with the resource agencies to develop consistent definitions and procedures for implementing the Section 404 program.

5. We believe that this recommendation is similar to our recommendation to the Secretary of the Army that he direct the Corps to develop, with the participation of the resource agencies, a simplified process for appealing district engineers' permitting decisions.

Comments From the Department of Commerce

Note: GAO comments supplementing those in the report text appear at the end of this appendix.



UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary for Administration
Washington DC 20230

JUN 17 1988

Mr. John H. Luke
Associate Director
Resources, Community and
Economic Development Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Luke:

This is in reply to GAO's letter of April 20, 1988, requesting comments on the draft report entitled "Wetlands: The Corps of Engineers' Administration of the Section 404 Program."

We have reviewed the enclosed comments of the Under Secretary for Oceans and Atmosphere and believe they are responsive to the matters discussed in the report.

Sincerely,

Kay Bulow
Assistant Secretary
for Administration

Enclosure

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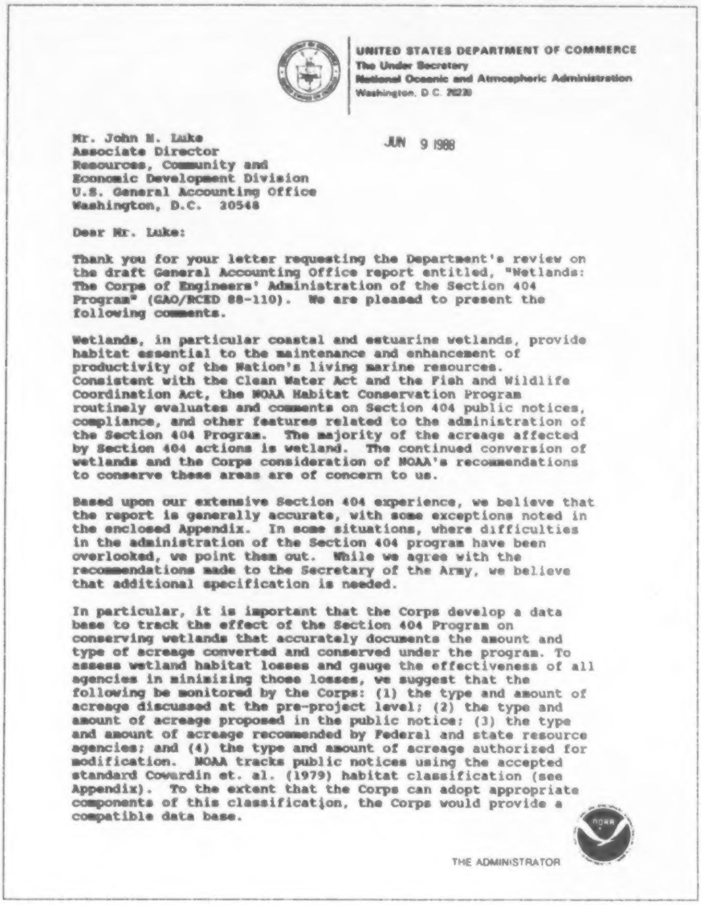


UNITED STATES DEPARTMENT OF COMMERCE
The Under Secretary
National Oceanic and Atmospheric Administration
Washington, D.C. 20230

JUN 9 1988

Mr. John H. Luke
Associate Director
Resources, Community and
Economic Development Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Luke:

Thank you for your letter requesting the Department's review on the draft General Accounting Office report entitled, "Wetlands: The Corps of Engineers' Administration of the Section 404 Program" (GAO/RCED 88-110). We are pleased to present the following comments.

Wetlands, in particular coastal and estuarine wetlands, provide habitat essential to the maintenance and enhancement of productivity of the Nation's living marine resources. Consistent with the Clean Water Act and the Fish and Wildlife Coordination Act, the NOAA Habitat Conservation Program routinely evaluates and comments on Section 404 public notices, compliance, and other features related to the administration of the Section 404 Program. The majority of the acreage affected by Section 404 actions is wetland. The continued conversion of wetlands and the Corps consideration of NOAA's recommendations to conserve these areas are of concern to us.

Based upon our extensive Section 404 experience, we believe that the report is generally accurate, with some exceptions noted in the enclosed Appendix. In some situations, where difficulties in the administration of the Section 404 program have been overlooked, we point them out. While we agree with the recommendations made to the Secretary of the Army, we believe that additional specification is needed.

See comment 1.

In particular, it is important that the Corps develop a data base to track the effect of the Section 404 Program on conserving wetlands that accurately documents the amount and type of acreage converted and conserved under the program. To assess wetland habitat losses and gauge the effectiveness of all agencies in minimizing those losses, we suggest that the following be monitored by the Corps: (1) the type and amount of acreage discussed at the pre-project level; (2) the type and amount of acreage proposed in the public notice; (3) the type and amount of acreage recommended by Federal and state resource agencies; and (4) the type and amount of acreage authorized for modification. NOAA tracks public notices using the accepted standard Cowardin et. al. (1979) habitat classification (see Appendix). To the extent that the Corps can adopt appropriate components of this classification, the Corps would provide a compatible data base.

THE ADMINISTRATOR

See comment 2

The recommendation "to work with the EPA to develop a coordinated enforcement program utilizing resources of both agencies to provide for surveillance, inspection, and assessment when violations of Section 404 permitting requirements occur" should be strengthened to include appropriate action where necessary. If violators are to be routinely provided "after-the-fact" permits, then the enforcement policy should include guidance for reviewing "after-the-fact" applications consistent with efforts to minimize adverse impacts to habitat.

NOAA will continue to support the development of a more comprehensive approach to the management of wetlands, in particular, tidally influenced wetlands. We believe this report is a step in that direction and commend the objective and accurate approach taken in this document.

We appreciate the opportunity to comment on the draft report.

Sincerely,

Paul M Wolff
for William E. Evans

Enclosure

Appendix

General Comments:

See comment 3.

For consistency with the Army/DOC Section 404(q) Memorandum of Agreement, we recommend that the word "appeal" used in the document be replaced with the word "elevate".

Specific Comments:

Now on p. 8.
See comment 1.

Page 11. Insert "estuaries" in the list of areas which make up wetlands.

Now on p. 9, paragraph 4.
See comment 1.

Page 13, paragraph 1. The last sentence should read "These three federal agencies are known..."

Now on p. 10.

See comment 1.

Page 14. State Coastal Zone Management Act (CZMA) authority is stronger than expressed here. Paragraph 1 should read "In addition, the CZMA 16 U.S.C. 1456(c), provides that a timely objection by a state with a Federally approved Coastal Zone Management Program to a consistency certification filed by an applicant for a Corps's Section 404 permit precludes the Corps from issuing a Section 404 permit, unless the Secretary of Commerce finds that the activity is either consistent with the objectives of the CZMA or necessary in the interest of national security."

Now on p. 14, paragraph 3.
See comment 2.

Page 20, paragraph 2. Wetland loss may be encouraged if permitting is easier and more expeditious when applicants discharge fill material and then apply for authorization. The ease of obtaining "after-the-fact" permits must be reduced if the rate of wetland loss is to be decreased.

Now on p. 16, paragraph 4.
See comment 4.

Page 21, paragraph 2. We suggest "...and resource concerns." be added to the end of the last sentence.

Now on p. 19, paragraph 1.
See comment 5.

Page 24, paragraph 1. "saved" should be changed to "conserved" in the third sentence.

Now on p. 19, paragraph 1.

See comment 6.

Page 24, paragraph 1. NOAA maintains an electronic data base for tracking public notice/permit acreage and related information. Examples of these systems are cited in NMFS publications Mager and Thayer (1986) and Faris et.al. (1987). This information is available for Section 404 related activities alone, as well as Section 10 and Section 10/404 for combined data.

Now on p. 24.

See comment 1.

Page 31. There are several reasons for pursuing habitat-related policy agreements between the Corps and Resource Agencies on coastal wetlands first, then tackling agreement on interior wetlands: (1) the Corps and the Resource Agencies are generally in agreement on the delineation of coastal wetlands; (2) these areas generally have greater habitat values for commercially and recreationally valuable fish and shellfish; (3) coastal wetlands are more scarce, making up about 3/10 of one percent of U.S. surface area versus five percent for interior wetlands; (4) coastal wetlands are threatened most often by non-water dependent, non-industrial uses such as residential development; whereas the relatively abundant interior wetlands are usually lost to agriculture or ranching; and, (5) coastal wetlands are generally reviewed under Section 10 as well as Section 404, and therefore given additional scrutiny.

Now on p. 25, paragraph 5.
See comment 1.

Page 32, paragraph 2. It is our understanding the Corps is now testing a method for delineating wetlands. That method should be cited here.

Now on p. 26, paragraph 3.
See comment 1.

Page 33, paragraph 3. The Corps, or an independent authority, needs to verify project purpose if wetlands loss is to be reduced.

Now on p. 27, paragraph 5.
See comment 1.

Page 34, paragraph 3. The Corps' emphasis on economic impact often overlooks the long-term economic contributions of habitat to commercial and recreational fishing industry.

Now on p. 28, paragraph 4.
See comment 1.

Page 35, paragraph 2. Even if the Corps had the capability to assess cumulative impacts, not all Corps districts are able to determine how many or which projects are within a given geographic area due to incomplete record keeping and inconsistent designation of waterway numbers. In particular, this problem has been noted in our Alaska Region and resulted in tracking difficulties.

Now on p. 33.
See comment 1.

Page 40. We agree with these recommendations. The first recommendation, however, for a data reporting mechanism to provide baseline information on the extent of wetlands impacts relative to Section 404 permits action, should state specifically the reporting of the type and acreage of wetlands involved.

Now on p. 33.
See comment 1.

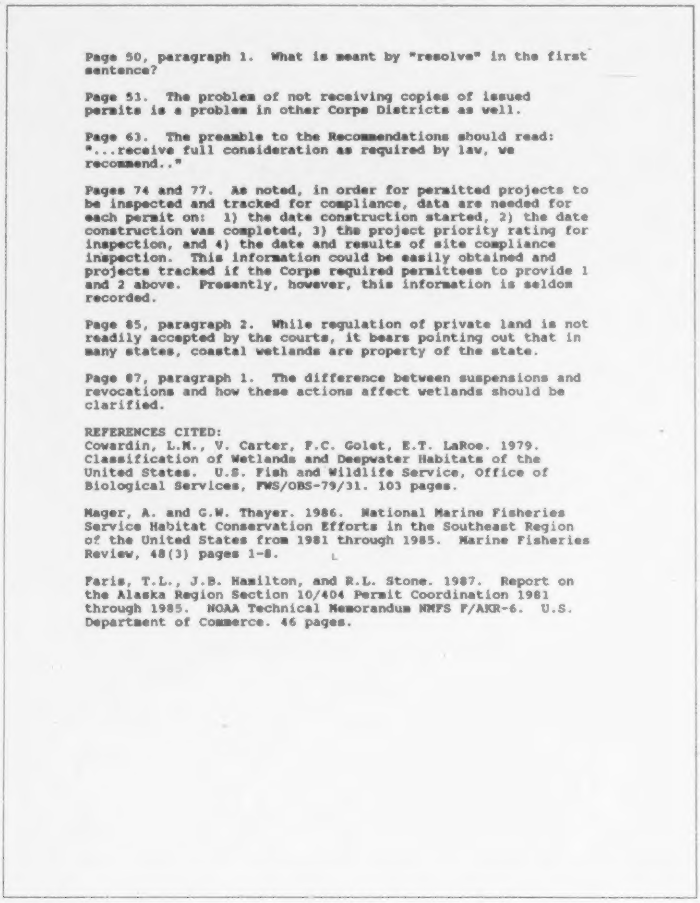
Page 40. The recommendation to the Secretary of the Army regarding the data reporting requirements, should include analysis of the entire Section 404 permit process (i.e., denial as well as approval of applications).

Now on p. 39.
See comment 1.

Page 45. We commend the pre-application approach used by the Omaha Corps District when problems are anticipated. It is unfortunate that the Corps is not yet able to use this approach nationwide.

Now on p. 40.
See comment 1.

Page 47. The Jacksonville District's practice of stating when public notice data are unverified should be adopted nationwide, thus giving the public and resource agencies an indication of which proposals may require additional scrutiny.



Now on p. 42, paragraph 4.
See comment 7.

Page 50, paragraph 1. What is meant by "resolve" in the first sentence?

Now on p. 44.
See comment 1.

Page 53. The problem of not receiving copies of issued permits is a problem in other Corps Districts as well.

Now on p. 53.
See comment 1.

Page 63. The preamble to the Recommendations should read: "...receive full consideration as required by law, we recommend.."

Now on pp. 63 and 65.

See comment 1.

Pages 74 and 77. As noted, in order for permitted projects to be inspected and tracked for compliance, data are needed for each permit on: 1) the date construction started, 2) the date construction was completed, 3) the project priority rating for inspection, and 4) the date and results of site compliance inspection. This information could be easily obtained and projects tracked if the Corps required permittees to provide 1 and 2 above. Presently, however, this information is seldom recorded.

Now on p. 70, paragraph 3.
See comment 1.

Page 85, paragraph 2. While regulation of private land is not readily accepted by the courts, it bears pointing out that in many states, coastal wetlands are property of the state.

Now on p. 72, paragraph 4.
See comment 7.

Page 87, paragraph 1. The difference between suspensions and revocations and how these actions affect wetlands should be clarified.

REFERENCES CITED:

Cowardin, L.M., V. Carter, F.C. Golet, E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service, Office of Biological Services, FWS/OBS-79/31. 103 pages.

Mager, A. and G.W. Thayer. 1986. National Marine Fisheries Service Habitat Conservation Efforts in the Southeast Region of the United States from 1981 through 1985. Marine Fisheries Review, 48(3) pages 1-8.

Faris, T.L., J.B. Hamilton, and R.L. Stone. 1987. Report on the Alaska Region Section 10/404 Permit Coordination 1981 through 1985. NOAA Technical Memorandum NMFS F/AKR-6. U.S. Department of Commerce. 46 pages.

The following are GAO's comments on the Department of Commerce's letter dated June 9, 1988.

GAO Comments

1. We have recognized these comments in the final report.

2. Corps regulations require that in those cases where district engineers determine that after-the-fact permits are appropriate, the applications will be processed in accordance with procedures governing other Department of the Army permit applications. These procedures include review by federal resource agencies, as described in our report.

3. We define our use of "appeal" and "elevate" in the introductory chapter of this report; therefore, we have not made this change.

4. We have described our findings at five Corps districts, including any differences in their administration of the Section 404 program, in chapters 2, 3, and 4.

5. We have changed the word "saved" to "protected" in order to provide consistency throughout the report.

6. We have clarified the report to indicate that information on the amount of wetlands acreage protected as a result of Section 404 permitting requirements is not available for all Corps permitting actions. Although NMFS provided us with considerable information on Corps permitting actions, we were advised that NMFS is primarily concerned with coastal wetlands and may not have information on all Corps public notices.

7. We have added an explanation to the report.

Appendix VI

Major Contributors to This Report

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Mr. OBERSTAR. Our next panel consists of two of the most important resource agencies involved in this process: Mr. Frank Dunkle, Director of the U.S. Fish and Wildlife Service, U.S. Department of Interior; and Mr. James Brennan, Assistant Administrator for Fisheries of the National Oceans and Atmospheric Administration, affectionately known as "NOAA."

Please raise your right hand. Do you have associates that will be with you?

Mr. BRENNAN. Yes, Mr. Chairman. I'd appreciate it if I could be accompanied by Mr. John Hall.

Mr. OBERSTAR. Mr. Hall.

[Witnesses sworn.]

Mr. OBERSTAR. Thank you.

Mr. DUNKLE. Mr. Chairman, I would like to introduce Mr. Ralph Morgenweck, who is the Assistant Director for Enhancement. He will be at the table with me.

Mr. OBERSTAR. He is certainly welcome here.

Thank you very much for being with us here this morning and participating in this very important hearing. The program is one with which each of your agencies has unique responsibilities, and we appreciate the job that you are doing — at least this Chair does—of protecting the wetlands of this country.

Mr. Dunkle, would you begin?

TESTIMONY OF FRANK DUNKLE, DIRECTOR, U.S. FISH AN WILDLIFE SERVICE, U.S. DEPARTMENT OF THE INTERIOR, ACCOMPANIED BY MR. RALPH MORGENWECK, ASSISTANT DIRECTOR, U.S. FISH AND WILDLIFE SERVICE

Mr. DUNKLE. Good morning, Mr. Chairman.

For the record, my name is Frank Dunkle. I am the Director of the U.S. Fish and Wildlife Service. With me today is Dr. Ralph Morgenweck, the Assistant Director for Enhancement. I would hope that you would allow him to answer questions when they are appropriate.

Mr. OBERSTAR. Well, I hope he will speak up as the occasion requires.

Would you please pull the microphone closer so that we can be sure to catch every word that you have.

Mr. DUNKLE. I would ask if I may submit for the record a statement from the Fish and Wildlife Service approved by all the appropriate bodies. I would also like to make a few comments if I may.

Mr. OBERSTAR. Certainly. Your complete statement will be inserted in the record immediately following your oral presentation. You may summarize that statement as you see fit.

Mr. DUNKLE. Thank you.

I will mention a couple of things, Mr. Chairman, that I think are important as we move along in this discussion.

One is that each of the several agencies that will be appearing before you have "chores" that are given to us by the Congress to carry out, known as "Congressional mandates". In the case of the four agencies that are here today, these responsibilities differ. We therefore approach problems from different viewpoints and at times, these viewpoints set us somewhat at odds with each other when coming to a decision concerning the 404 permits.

The Fish and Wildlife Service has a mandate to review 404 permits with the goal of providing protection to wetlands throughout the United States. In doing this we have to take into account what the quality of a specific wetland is, and what are the uses that other people want for the land at issue.

The Service attempts to provide a broad perspective on the issues, while at the same time, offering technical comments to fulfill the responsibility that we have been given to, and/or mitigate for, those wetlands.

The General Accounting Office report has indicated that a common understanding of what constitutes a wetland does not exist among all of the agencies.

The report has indicated that perhaps our method of review—or "elevation," to use the exact term, is cumbersome and may not be working. In addition, the report has highlighted some of the difficulties involved with mitigation.

I would like to quickly address all three of these points.

We believe that we have reached an important milestone with respect to a definition for wetlands. The technical staff of the involved agencies have been working to develop a practical definition of "wetlands" that can be used in reviewing 404 permits. This definition provides that we examine the plant and soil characteristics, and we also examine the water regime or water depth at various times of the year.

We are working closely with the Soil Conservation Service, the Environmental Protection Agency, and the Corps of Engineers, to produce a series of definitional statements that we can agree upon after which it will be reviewed by the various agencies for concurrence. I think that we will come to some consensus so that people will know what they face when they are told that a project involves a wetland.

This definition should be developed within the next 2 months, and I think it will be one of the very important steps that the involved Federal agencies have to take to begin developing a solution to the problem of wetlands delineation for 404 permits.

Mr. **Oberstar**. Excuse me at this point. Do you have a time frame within which that agreement is to be made final?

Mr. **Dunkle**. There will be concurrence on a technical level within the next month to 6 weeks. The definitions will then be reviewed via the clearance process in each of the agencies. At a future point, it will be reviewed and discussed by the agency heads. Generally speaking, if the technical staff agree, then we have a good chance that it will be accepted.

So we expect to see a definition that has been agreed upon technically within the next 6 weeks so that we can begin its review by affected agencies, leading to agreement and acceptance.

Mr. **Oberstar**. Could you identify the separate agencies or branches which will be participating?

Mr. **Dunkle**. Yes. The agencies will include the Soil Conservation Service, the Corps of Engineers, the Environmental Protection Agency, and the Fish and Wildlife Service.

The other area is mitigation. We believe that we should follow a set of sequential steps in mitigation. I have outlined those steps in my text, and I will not take the time to go over them, but there is a way that we approach the mitigation problem, and I think it is a good approach. We proceed step-by-step, and essentially start with a recommendation for no mitigation in some circumstances, and at the other end of the spectrum, indicate that there is no problem in issuing the permit.

I would call your attention to the fact that over time we have reviewed more than 30,000 permit applications. Of those 30,000 applications we have elevated, only six have gone to the highest level. I would like to add that none of those six were successful, but that does not mean that we did not try.

The system is not as cumbersome, I believe, as the report from the General Accounting Office has indicated. The process does take time and require review. However, a great deal of the process can be handled rather rapidly and informally.

The process becomes cumbersome when the elevation involves exchanges to the Division Engineer and a Regional Director, and also when it is brought before the Assistant Secretary for consideration. These processes do take time.

But I would note that many of the resource issues can be solved at the field level. Most of us believe that problems should be solved as close to the resource as possible. I heard a comment this morning regarding inconsistencies at the field level, that is, one region or one district or one division does it one way, and another does it a different way. I would argue that such inconsistency is a result of poor policy, rather than poor understanding at the field level.

We hope that many of the permit issues do not have to be elevated, that we have competent people in the field who can review applications, and make decisions and recommendations without pursuing an elevation regularly.

I think our policy allows the field staff to make the kind of decisions that are required. The other side of that coin, of course, Mr. Chairman, is that the field personnel, know they will get solid and sound support when decisions are elevated.

The Fish and Wildlife Service personnel provide the best biological recommendation that they can offer; if other factors need to be weighed for the permit, whatever they may be, such as a political and economic considerations, these factors are rightfully the decisions made in the Washington office, and our people fully understand that.

The MOU—Memorandum of Understanding—that we have with the Corps is working, but it needs to be streamlined. Both the Corps and the Service have discussed this need, and I think that you will see some changes, as was indicated by the GAO report.

With respect to enforcement, it is our belief that if we were to participate in better enforcement, we would be known as the "snitches" in the gang, because we do not have any enforcement authority. Therefore, we would be constantly calling the Corps or the Environmental Protection Agency and saying, "Did you know that so and so over here is filling a wetland and he does not have a permit?" The Corps would then rush out to the site and say, "Did you know that the Fish and Wildlife Service told us that you were doing a bad thing."

There are pros and cons to the situation; if you could convince the Corps not to report our notices in such a manner, we would be glad to tell them about those violations as we see them. However, I recognize that this approach also causes problems for them as well.

Mr. **Oberstar**. Maybe the Corps needs a hotline like we've established for the FAA and pilots that want to report near mid-air collisions.

Mr. **Dunkle**. I would not suggest that, sir, but I would like to offer another suggestion to the Congress. It appears that you may feel that the Fish and Wildlife Service does not have the kind of input during permit review that you think is necessary and which is similar to the Service's authority under the Endangered Species Act where it behooves the agency seeking consultation to accept or reject the jeopardy findings of the Service.

If the Federal agency rejects those findings, then some kind of judicial action is likely. However, they can still ignore the jeopardy decision.

In the current situation, the service does try to resolve differences cooperatively. But you are always going to have differences regarding how the resource should be used.

Congress has told both the Corps and EPA that if you do not agree with the finding, you have the opportunity to overturn it. The Corps has the discretion to say, "This permit decision is in the best public interest; thus, we will not accept your recommendations." EPA can then say to the Corps, "We think, in the best interest of clean water, that we will overrule your findings." The Fish and Wildlife Service then wanders on down the street and reviews the next permit.

Those are some of the factors that your committee might want to consider in determining the role of the Fish and Wildlife Service in offering recommendations on mitigation, and in reviewing the validity of a permit.

A stronger Service role would also ensure that our recommendations are adequate, proper, and correct, and that we have taken into account the other uses of the resource we have referred to.

Recent announcements supporting the no net loss approach for wetlands is another major step. I concur with the concept wholeheartedly. It has been the basis of our review of 404 permits and I am pleased to see that it has been publicly endorsed.

At any rate, we would like to see that enforcement activities are prioritized. I recognize that such efforts require more money, more people, and more time. In our agency we re-allocate resources to meet priority activities.

In the case of enforcement, the Service has to assign it a low priority because we do not have any related statutory authority.

Again, I would note that Congress has given each of the agencies a different directive. We have tried to find cooperative ways to handle those differences, and I think that we try to resolve our differences in-house so that we can come to agreement.

I would call to your attention that each of the agencies has a respective constituency. In one case, it is a group that wants to use wetlands for purposes other than we in the Service would agree with. The Service, on the other hand, has a constituency that says, "Wait a minute. If you allow one track to run through a wetland you have not done your job."

Therefore, each of us has different demand depending on the role which Congress has assigned. It is inevitable that we are going to have conflict and we are going to have differences. We will try to resolve these differences as best as we can; and when we can not, the Congress should give serious consideration as to how we should reach final conclusions.

In my tenure as Director of the Service, I have had excellent results in working with other agency heads. None have ever refused to meet with me. None have ever agreed to everything I have asked for, and I am sure that that will never be the case since, during my 40 years in this field, I have not always agreed with the Corps of Engineers, and I think the Corps would testify to that.

The Service believes that we are working towards an important goal, and that is conserving, protecting, and enhancing wetlands. Wetlands have become even more valuable during this year of drought. We know the value of wetlands for waterfowl and for other types of wildlife, and the other uses served by wetlands, such as protecting the water table.

The Service believes in the need, the value, and the reasons for wetlands protection. I think we are working towards this goal cooperatively. If GAO discovers that we are not working diligently enough, I am sure that all of us will re-assess and re-direct our efforts. I would note that all of the Federal agencies should try to do what we are supposed to do as directed by Congress, and I would suggest that some of us perhaps need more concrete direction from the Congress if you do not think we are adequately protecting wetlands.

Mr. Chairman, I would be happy to answer any questions.

[The prepared statement of Mr. Dunkle follows:]

TESTIMONY OF FRANK DUNKLE, DIRECTOR, U.S. FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR, BEFORE THE SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT, COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION, U.S. HOUSE OF REPRESENTATIVES, CONCERNING SECTION 404 OF THE CLEAN WATER ACT

September 14, 1988

Mr. Chairman, I am joined here today by Ralph Morgenweck, our Assistant Director for Fish and Wildlife Enhancement. I welcome the opportunity to appear before the Subcommittee to describe the role of the Fish and Wildlife Service (Service) in the implementation of Section 404 of the Clean Water Act.

Section 404 authorizes the Army Corps of Engineers (Corps) to issue permits for the discharge of dredged or fill material into waters of the United States, including wetlands, at specific disposal sites. Section 404(q) of the Act requires that the Corps establish agreements with the Department of Interior (and other Federal agencies) for the sake of implementing this program. Within the Department of Interior, this responsibility has been delegated to the Fish and Wildlife Service (Service).

Other Federal environmental statutes, most notably, the Fish and Wildlife Coordination Act, mandate a role for the Service in offering technical and biological recommendations to mitigate impacts to fish and wildlife resources. The Service recognizes that implementation of the Section 404 program involves several Federal agencies and the states. The various responsibilities exercised by these parties have, at times, resulted in differing views of how the program should be implemented.

I will describe the policies and procedures involved in determining the need for mitigation and the types of mitigation measures that we think should be required. I will briefly discuss the report prepared by the General Accounting Office, and I will make recommendations for improving the effectiveness of the 404 program in protecting wetlands.

My remarks will specifically focus on:

1) the methods used by the Service in evaluating habitat losses and mitigation measures,
2) the importance the Service places on the section 404(b)(1) Guidelines in fulfilling the goals of the Clean Water Act,
3) the Service's goal of "no net loss" under the Section 404 program, and
4) the need for an appeal process that focuses dialogue on the goal of the Clean Water Act.

ROLE OF THE SERVICE IN MITIGATION PLANNING UNDER SECTION 404

Service participation in mitigation planning under Section 404 is required by several Federal laws and regulations, including the Fish and Wildlife Act, the Fish and Wildlife Coordination Act, the Endangered Species Act, the Clean Water Act, and the National Environmental Policy Act.

In the 404 review process, the Service has adopted the definition of mitigation developed by the President's Council on Environmental Quality. The Service believes that this definition provides a desirable sequence of steps for minimizing or eliminating adverse environmental impacts.

In the Service's view, the first step is to avoid impacts, the second is to minimize impacts, the third and fourth are techniques to eliminate impacts over time, and the final step is to compensate for unavoidable impacts. This last step, which usually involves creating or improving habitat, is what most people think of when the term mitigation is used.

The Service's role in mitigation planning involves an advisory approach whereby the Service conducts project reviews in the form of research, surveys or investigations and provides recommendations to others, including Federal regulatory agencies.

The fundamental responsibility of the Service under these statutes is to provide the best possible scientific and technical information, on behalf of the Department of the Interior, to the Corps, which is the primary decision-maker under Section 404. The Service provides this information through its Regional and local field offices. Although the role of the Service is to provide technical information to assist in implementation of the Section 404 program, the Service does express concerns regarding implementation policies when such policies have the potential to limit the Service in exercising its advisory role or in restricting the jurisdictional scope of the program.

The Service provides technical assistance and recommendations so as to support the Nation's need for fish and wildlife resources while facilitating balanced development. The Service seeks to facilitate needed development through early involvement in land and water resource development planning activities, both in advance of project proposals and during the early planning and design stages of individual projects.

By providing technical assistance early in the planning process, the Service helps private and public agencies design projects that avoid or minimize fish and wildlife losses. This is the preferred method of fish and wildlife mitigation.

The Fish and Wildlife Service responds quickly and clearly to a large number of Corps public notices each year. The following statistics illustrate this point.

- In Fiscal Year 1986, the Service reviewed approximately 10,500 notices of permit applications.
- The Service processed these notices quickly, taking 15 days for each, on average.
- The Service recommended major modification for approximately 20 percent of the projects.
- The Service recommended denial of only about 3 percent of the notices it reviewed.

As mentioned previously, section 404(q) of the Act requires the establishment of interagency agreements among the agencies involved with the program to make the permit processing procedures more efficient. In 1967, an initial Memorandum of Understanding was signed between the Departments of the Army and Interior to provide a framework for interagency consultation. This document was subsequently revised in 1980 and 1982.

The most recent revision, a Memorandum of Agreement (MOA) completed in 1985, was undertaken to further streamline the decision-making process under Section 404, and to provide a procedure for the Service to appeal permit decisions by District Engineers that the Service believes do not adequately consider important fish and wildlife resources. A major objective in revising the MOA was to delegate most of the responsibility for permit decisions to the field and regional level. The MOA lists the mechanisms for interagency coordination and the specific elevation procedures to allow review of a permit by a higher authority. Since the agreement was enacted, seven decisions of District Engineers have been elevated by the Service for Washington level review.

According to the GAO report, resource agencies have not frequently exercised their authority to appeal the Corps districts' decisions to higher levels within the Department of the Army. This failure to rely on elevation procedures contained in the MOA has developed, according to the report, due to the perception that the appeal process is cumbersome and ineffective. From the Service's perspective, resolution procedures should focus on the goal of the Clean Water Act "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

EVALUATION OF HABITAT MEASURES AND MITIGATION MEASURES

Service biologists request and develop information on project proposals to identify fish and wildlife resources and their values that may be affected by development, to assess project impacts on these resources and values, and to make recommendations to mitigate significant adverse impacts. As mentioned previously, the Service has adopted the definition of mitigation developed by CEQ. We believe that the five elements in the definition provide a desirable sequence of techniques for lessening adverse environmental impacts.

Mitigation guidance is provided to Service field biologists to assist them in determining the level of mitigation to recommend for specific projects. In implementing the CEQ definition of mitigation, the Service's basic principle is that the level recommended should be commensurate with the fish and wildlife resource values at risk. This level is always based on the values and scarcity of the affected habitats. This approach ensures consistency and predictability, which are fundamental to regulatory programs.

An example of the frequency with which Service resource recommendations are accepted by the Corps and the effectiveness of these recommendations is documented in a study conducted for the South Texas Coast involving 59 permitted projects over a period from 1975 - 1986. Although this study involved only one, small geographic area, the results indicated a 78 percent unconditional acceptance of Service recommendations. The report attributed the successful level of incorporation of mitigation recommendations to predevelopment consultation between permit applicants and the resource agencies. Conversely, the report noted that the Corps was reluctant to accept Service recommendations requesting denial of permits or removal of already-built structures.

With respect to the effectiveness of these recommendations, the report cited that the highest levels of mitigation implementation and success were associated with avoidance recommendations. In contrast, the implementation of recommended habitat compensation projects was cited as less successful. Statistics supporting this conclusion indicated that only 71.5 acres of wetlands were generated by compensation activities authorized to replace 114 acres lost to development projects.

Based upon our statutory obligations, the Service's recommendations are designed to ensure that losses of fish and wildlife resources are considered and mitigated. The Service's goal, when offering technical recommendations, is to achieve "no net loss" of habitat value for important biological resources. We view that as being consistent both with our own responsibilities and with the goal of the Clean Water Act "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

The Service also believes it is very important that the five steps included in the CEQ definition of mitigation be applied sequentially. This is necessary, in our opinion, to achieve the "no net loss" standard and the goals of the Clean Water Act. In developing mitigation recommendations, the Service gives first priority to on-site opportunities. Fish and wildlife resources and the public's use of those resources are usually best served by fully mitigating for impacts at or near the project location. When this is not feasible or desirable, off-site mitigation may be acceptable.

COMMENTS ON THE REPORT FROM THE GENERAL ACCOUNTING OFFICE

I would now like to briefly discuss the draft GAO report, which points out a number of policy differences between the Corps and the Federal resource agencies, including the U.S. Fish and Wildlife Service. The report notes that these policy differences cause the 404 program to be less effective in protecting wetlands than it could be.

The 404 (b)(1) Guidelines

As cited previously, the primary objective of the Clean Water Act is to restore and maintain the integrity of the waters of the United States. Issuance of permits for discharge of fill material is required to be consistent with provisions of the 404 (b)(1) Guidelines (Guidelines) prepared by the Environmental Protection Agency in conjunction with the Corps of Engineers.

The 404 (b)(1) Guidelines were adopted under the Clean Water Act and are therefore the appropriate standards to apply to permit applications. The Guidelines specifically prohibit discharges that will cause or contribute to significant degradation of the waters of the United States. In order to meet this high standard for protection of wetlands, the Service supports a goal of "no net loss" of habitat value. In addition, the Guidelines should be applied as a threshold determination. Implementation of this concept requires that permit applications first be determined to be consistent with the criteria included in the guidelines, such as water-dependency, prior to being reviewed under the balancing criteria contained in the public interest review.

Cumulative Impacts

The intent of the National Environmental Policy Act and other Federal laws that suggest consideration of cumulative impacts is not simply to assess cumulative impacts, but rather to evaluate development proposals "in context" so that cumulative impacts can be avoided through the appropriate design, siting, timing and operation of projects. The context for project evaluation is determined by establishing appropriate geographical boundaries and timeframes (extended into the "reasonably foreseeable future"), and then by analyzing resource and development trends and status.

An impact may be cumulatively significant even if the next increment of habitat degradation will not cause severe environmental problems. Therefore, Service policy is to protect important fish and wildlife resources and prevent them from declining to a point where they face extreme degradation or elimination. This emphasis on protection of fish and wildlife resources is crucial because we cannot identify clearly and with confidence all of the various factors that limit a population, and we cannot continue to allow theoretically noncritical components of the ecosystem to be degraded until some assumed critical point is reached.

It is possible that gains in cumulative impact management can be made if resource goals are adopted with which to compare the results of resource trends and status analyses.

Enforcement

The Service and other resource agencies participate in the enforcement process at the discretion of the District Engineer, and as allowed by funding and workload considerations. In our opinion, agency review and comment on the restoration or rectification of habitat adversely impacted by unauthorized activities would provide important benefits to the program and should receive greater emphasis.

According to the GAO report, Corps personnel have acknowledged that undetected violations of Section 404 permit requirements may be occurring, that neither the Corps nor EPA has systematic surveillance programs to detect unauthorized activities, and that EPA has infrequently exercised its enforcement authority in the past. In our opinion, such unauthorized activities offset resource gains achieved through other environmental programs, set up dual standards for resource protection and reward violators who have adversely affected public resources. Based on the findings in the GAO report, it is incumbent on all of the agencies involved in the Section 404 program to assist in an effective law enforcement effort.

Recommendations

The following recommendations would greatly improve the effectiveness of the Section 404 program in protecting fish and wildlife resources:

1) The goal of the Clean Water Act, to restore and maintain the integrity of waters of the United States, should be adopted as the foundation upon which the entire Section 404 permit program is based. Although incorporated in Corps regulations, the 404(b)(1) guidelines should be applied as a threshold determination.

2) The Corps is authorized to issue general permits on a state, regional, or nationwide basis for categories of activities which are similar in nature and which will cause minimal environmental impacts. The Service believes "general denials" should similarly be considered for categories of activities that are detrimental to habitats with particularly significant resource values.

3) Enforcement activities by all agencies should be a higher priority in implementing the 404 program.

4) The Federal resource agencies and the Corps should continue to work together to develop a method of wetland delineation that is scientifically defensible and reflects the goals of the Clean Water Act. That will help to ensure that the Corps receives uniform and current information.

In closing, I would like to stress our commitment to effective interagency coordination on Section 404 permits. With respect to mitigation, we have found time and again that early coordination is the key to successful resolution of difficult issues concerning project development and resource protection.

Mr. Chairman, this concludes my prepared statement. I am available to answer any questions which you may have.

Mr. **Oberstar**. Thank you very much for that statement and for the detailed presentation you have already submitted which, as I said, will be included in the record.

We will proceed with Mr. Brennan and the views of NOAA before going to questions.

TESTIMONY OF JAMES BRENNAN, ASSISTANT ADMINISTRATOR FOR FISHERIES, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, U.S. DEPARTMENT OF COMMERCE, ACCOMPANIED BY JOHN HALL, ACTING CHIEF, HABITAT POLICY AND CONSERVATION DIVISION, NATIONAL MARINE FISHERIES SERVICE

Mr. **Brennan**. Thank you, Mr. Chairman.

For the record, my names is James Brennan. I am Assistant Administrator for fisheries of the National Oceanic and Atmospheric Administration. I am accompanied today by John Hall, who heads the Habitat Policy and Conservation Division of our Office of Protected Species and Habitat.

I have submitted a prepared statement, Mr. Chairman, which I would propose to summarize. And then, at your pleasure, if I could perhaps refer to some of the questions that have been raised earlier this morning, or whether you'd rather go right into questions here.

Mr. **Oberstar**. Why don't you make your summary statement and, in the process of it, or at the conclusion of it, respond to some of those points.

Mr. **Brennan**. As you pointed out, Mr. Chairman, wetlands are very important, and that is why the Corps' 404 permitting procedures are also important to this agency.

Now, I should point out that the reason that the National Marine Fisheries Service is particularly concerned about wetlands is because it has a mandate to manage and protect marine sport and commercial fisheries.

Wetlands, therefore—especially the estuarine wetlands that are part of a bay or a sound—are very important to us, because they are a habitat for several species of marine mammals and an enormous variety of fish and shellfish.

Some 70 percent of all the marine fish caught in the United States depend on healthy wetlands. That means either they are caught near shore or they spend some critical portion of their time in the in-shore nursery areas, as we call them.

Commercially, these fish are worth about $14 billion a year. Moreover, there are 17 million anglers who spend an additional $35 million a year catching recreational species that are estuarine dependent.

The sad fact is, Mr. Chairman, that in our Southeast region alone there are 2.5 million acres of productive wetlands that are closed to shellfishing at this time. Thirty percent of the shellfish areas of the United States are closed. This has become a problem not only for this agency because it affects the health of the fisheries; but, in fact, it has become a considerable public health problem.

We have just recently completed a one-year under-cover investigation of interstate shipment of illegally-harvested shellfish. We have come up with indictments of 11 people in a five-state area. This is a very serious problem, and it is a problem that we mean to address in cooperation with the Food and Drug Administration.

The National Marine Fisheries Service provides analysis and recommendations for about 9,000 federal projects or federally-authorized applications each year, about half of which relate to 404 permits.

Last year we evaluated applications to dredge, fill, or alter about 40,000 acres of wetlands and coastal waters. For the most part, we had no objection. For 23,000 acres we had no problems with it. We opposed alteration of 15,500 acres and recommended mitigation efforts for some 8,400 acres.

The GAO report makes it very clear that if essential wetlands are to be protected, the process must be properly administered.

I have a great deal of sympathy for the Corps of Engineers. Our agency, too, is a regulatory agency. And to paraphrase A. A. Milne, "The lot of a regulator is not a happy one," Mr. Chairman.

We might suggest some areas to look at where we could make some changes and improvements. The area of surveillance and enforcement has been mentioned earlier. There must be, I think, a genuine deterrence to unauthorized filling of wetlands into noncompliance with permit conditions.

If, when we go through the process, we have a permit issued and there is an agreement as to what should be done, that should be well and truly carried out.

With respect to analysis of the applications, the numbers I mentioned to you indicate that this is an overwhelming problem. We have found that one way to deal with the majority of these issues is to send out and contract with private contractors who visit the sites, take pictures on sites, walk the site, come back with a description to us. And from that we can use that as a basis for any coordination with the application, itself, in making our recommendations.

That is not always the most satisfactory way to do it.

As has been mentioned earlier, there is a fee charged. The fee is $10. Well, that's not very much money today, as you know.

I just had a developer come to my office, as a matter of fact, just last week. He has got a multi-million dollar project. It is an important project to him. He was concerned that we did not have one of our people down there flying over the project at low altitudes with a helicopter, walking through the marsh, and looking at the plans with the developer so that we could see exactly what he had in mind and perhaps form a better judgment. I have no doubt that he was a very conscientious person.

I told him that we have a budget problem. I asked him what he would think if there were a fee. He said he'd be glad to fly our person in and to look at the property. I told him I didn't want to do that—it wasn't good for him and it wasn't good for me. But if there were some sort of fee involved where it went into the Corps on these projects, and we used that money to send the experts in and to take a look at it, I asked him what he thought of that.

His answer was that a $10,000 fee would be fine if he felt that I was getting the experts to look at the property. Of course you're talking with a person here that has millions of dollars at stake. But I think other people might feel that perhaps they would feel more comfortable with the result if they actually saw a biologist walking the turf and felt that he understood their problem when he went to look at the biological problems.

I think the problem is maybe more of a perception problem than anything else, but after-the-fact permits—there is a perception by many of my people—the biologists who are concerned about coastal wetlands—that they are granted too readily. They think that this discourages people from attempting to comply rigorously with conditions, and may even discourage them from applying at all.

We agree that the Corps should work with EPA to develop a coordinated enforcement program that uses the resources of both agencies to provide the necessary surveillance inspection and penalties when 404 violations occur.

Mr. Dunkle talked about not wanting to be a snitch in telling the Corps of Engineers where we know of problems where a person is not complying. Frankly, I don't see that as being a snitch. I see that as being a good citizen. If we have a problem, we let the Corps know if we see something that is not being complied with, or if we see a fill that is being dumped without a permit. I don't consider that snitching at all.

I would like to say some things because there were so many things that crossed my mind as I heard the questions and answered.

I think if you look at this process, I agree—and this is the road I'm going with fishery management—that the action ought to be in the region and in the district, as far as the Corps is concerned. And I think even further than that that the states ought to be involved. That's why I think the NOAA program dealing with coastal zone management should be so effective here.

I think what we're finding out is that in the coastal zone management program, in states that do have a coastal zone management program, tend to filter out the large lumps. They never even get to the Corps' permit stage because the developer knows that the program he has is not an appropriate program and he can't get a state permit. If he can't get the state or local permits, which would be granted under some state criteria under the Coastal Zone Management Act he doesn't go to the Corps. He modifies it and then goes to the Corps.

So I think that is a good thing. It gets the states involved. They have a stake in their wetlands, too, as I said earlier—public health as well as shellfish.

The no net loss policy: I think that that's a great goal; but, frankly, I'm not sure we're ever going to reach it. Take a look, for example, at Alaska. Alaska is largely undeveloped, and with a lot of wetland. If we go do a no net loss policy and rigorously enforce it, frankly I think you're saying no net loss equals no development at all. I'm not sure that is what we want.

I think we do want to avoid unnecessary and inappropriate development in the wetlands.

I have, of course, an easier job than Mr. Dunkle does, because I am only concerned about the coastal wetlands. We, in the Corps of Engineers, agree about what a coastal wetland is. Our view is that it is something that supports fish or shellfish. We're talking about tidal wetlands, inter-tidal wetlands, super-tidal inundated every now and then. But I have not been advised by my people that it is a big problem as far as defining what a marine wetland is, what an ocean wetland is. We more or less agree on that.

Fortunately in NOAA we have, in addition to the National Marine Fisheries Service, a cadre of expertise that is very useful. We are, in fact, at this time, with our national environmental data and information service, our satellite programs, developing an inventory of wetlands.

We have the technology that has started in the last year to make, through U2 flights and satellite flights, pictures of wetlands that we can show where the marsh grasses are which suggest where the important habitats are. And we are progressing in developing that technology, so we are moving in that direction.

The important thing about this is that we will be able to tell where we are today, and then five years from now we will be able to look back and see where we were and if we are heading in the right direction.

Mrs. Johnson mentioned mitigation. Our experts tell me with respect to salt water that mitigation is essentially an untried and unproven process. What some people have been doing has been to attempt off-site to establish marsh grasses. We are not sure, at this point, that that is an effective way to do that, so I would not put all my eggs in that type of mitigation and substitution until it is proven.

I have with me, Mr. Chairman, clear testimony that Doctor Ford Cross, director of our Beaufort Laboratory, gave on August 11 before a panel discussion on the Subcommittee on Fisheries and Wildlife Conservation and the Environment Subcommittee on Oceanography of the House Merchant Marine and Fisheries Committee. I think it is an excellent piece. It really tells you where we are with respect to marine wetlands and coastal wetlands, and what we know and what we don't know.

I would like, with your permission, Mr. Chairman, to submit that for the record so that your committee members might have the benefit of Doctor Cross' research with respect to coastal wetlands.

Mr. OBERSTAR. How long is that document?

Mr. BRENNAN. This document is 24 double-spaced pages.

Mr. OBERSTAR. Without objection the document will be received and included in the record following your testimony.

Mr. BRENNAN. Thank you, Mr. Chairman.

With respect to division of expertise, our Memorandum of Understanding with the Corps of Engineers makes it very clear that they only expect us to comment on areas of our expertise. We would not presume to tell them how to change a road or do something else beyond our expertise as an agency concerned for marine biology.

We, of course, then have a perspective of an agency like that. That is the nature of bureaucracy that different bureaus have different interests. We recognize that the Corps has the ultimate responsibility to make the hard decision, but it is not our job to help them balance. Our job is to give them the viewpoint of the agency that is concerned with the preservation of the wetland.

I think, Mr. Chairman, that that is all the points that I can recollect that I thought needed special attention.

I thank you for your patience, Mr. Chairman.

[The prepared statement of Mr. Brennan follows:]

STATEMENT OF
JAMES W. BRENNAN
ASSISTANT ADMINISTRATOR FOR FISHERIES
NATIONAL MARINE FISHERIES SERVICE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

BEFORE THE

SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

UNITED STATES HOUSE OF REPRESENTATIVES

SEPTEMBER 14, 1988

Mr. Chairman and Members of the Subcommittee:

I am James W. Brennan, Assistant Administrator for Fisheries of the National Oceanic and Atmospheric Administration (NOAA). I appreciate the opportunity to appear before this Subcommittee to discuss the General Accounting Office (GAO) Report on the Corps of Engineers' (Corps) administration of Section 404 of the Clean Water Act.

Importance of Wetlands to Fisheries of the United States:

Estuarine and coastal wetlands provide habitat essential for several species of marine mammals and especially for the maintenance and productivity of the Nation's living marine and anadromous fishery resources. The majority of U.S. fish and shellfish species of commercial and recreational importance spend a critical part of their life in these areas. Such species are referred to as "estuarine dependent" and include shrimp, salmon, menhaden, crabs, flounders, oysters, herring and clams. Each year, the commercial harvest of these and other saltwater species contributes about $13.9 billion to the U.S. economy. Also, many inland and riverine wetlands support anadromous species such as salmon, sturgeon and striped bass. We believe sustained and even increased productivity of all of these species offers economic benefits that may outweigh potential gains from activities which destroy fishery habitats.

Many fishery resources of considerable recreational importance are also dependent upon coastal wetlands. Examples include bluefish, red drum, blue crabs, salmon and sea trout. An estimated 17 million anglers enjoy marine recreational fishing and contribute another $13.5 billion annually to the U.S. economy, concentrated in coastal communities.

While fishermen depend on an abundance of healthy fishery resources, they depend also on adequate marinas, ports, navigation channels and moorage facilities whose construction and maintenance could alter and destroy fishery habitats. The Census Bureau predicts that within the next two years, over half of the U.S. population will live within an hour's drive of a coastline. Harbors, roads, bridges, dams, draining for agriculture and related dredging, filling, and impounding associated with this population shift will make great demands on the Nation's wetland resources, as well as on those State and Federal agencies charged with regulating and managing the effects of this phenomenon.

As Federal resource managers, we are acutely aware of the need to balance the protection and use of our renewable natural resources against other legitimate needs for growth and commerce.

The NOAA Fisheries Relationship with Federal Regulators:

As specified in its Habitat Conservation Policy, NOAA employs the consultation provisions of the Fish and Wildlife Coordination Act (FWCA) to influence decisions of Federal water resource construction and regulatory agencies. Under authority of the FWCA and the Clean Water Act, NOAA Fisheries provides analyses and recommendations on nearly 9,000 Federal projects or Federally-authorized permit and license applications annually.

NOAA Fisheries employees also evaluate license applications pending before the Federal Energy Regulatory Commission, Federal projects constructed and operated by the Corps and the Bureau of Reclamation, lease sales by the Minerals Management Service for oil and gas development on the Outer Continental Shelf, and numerous other actions including full reviews of Environmental Impact Statements. These evaluations allow other Federal agencies to assess more fully the potential effect of their actions on fisheries resources and their habitats. We often recommend less damaging alternatives and other forms of mitigation measures, including habitat restoration and rehabilitation.

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In 1987, NOAA Fisheries evaluated over 7,300 Corps permit applications to dredge, fill, or otherwise alter over 39,000 acres of marine and coastal waters and wetlands. Of these applications, we did not object to alteration of 23,000 acres. We opposed alteration of 15,500 acres and recommended habitat restoration and generation of over 8,400 acres. The vast majority of our evaluations were completed on time. During 1987, for example, 99 percent were provided on time. A study published in 1988 1/[1] showed that nationally, the Corps accepted 67 percent of our major recommendations on permits.

The GAO Report

We agree with the GAO that proper administration of the 404 Program is important if essential wetlands are to be protected in the national interest. We believe that the Corps program is generally successful but, like any good program, has room for improvement. NOAA Fisheries has a good working relationship with the Corps and, I believe, with exceptions noted below and in earlier Department of Commerce written comments on the report, that the Section 404 permit process is working well.

To more fully achieve the objectives of the Clean Water Act, we recommend that elements of its Section 404 regulatory program be examined for possible modification. Many of the solutions proposed, in particular upgrading compliance/surveillance and enforcement elements, can consume an enormous amount of time and money. There are however, options we believe would further enhance the efforts to carry out an effective surveillance and permit follow-up program to help ensure that permit conditions are complied with and that unauthorized activities are more likely to be detected.

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[1] Hall, J.R. 1988. "A Perspective on Influencing the Corps of Engineers," p.60-65, In Kusler et.al., Proc. National Wetland Symposium, New Orleans

NOAA Fisheries has used private contractors with considerable success for 10 years in its Southeast Region to perform field evaluations of the Corps Section 404 and Section 10 permit applications. This process has proved to be inexpensive and has helped us evaluate proposed permit actions that we might not have otherwise, because of staff limitations.

We have long believed that reasonable charges for government services are both appropriate and needed. We understand that the Corps has recently examined the fees it charges for processing permits. We would support processing charges that accurately reflect costs for the services performed. Current permit processing fees are as low as $10.00 per application. It may be possible to pay for the additional costs of more comprehensive field inspections through increased user charges.

In addition, there are now numerous State and Federal agencies compiling data on the status of wetlands, the number of Corps permits, acreage affected, time limits, and numerous other factors. Since these agencies have a common interest in the responsible use of the Nation's resources, NOAA Fisheries is discussing with other agencies the possibility of an interagency data-sharing network. NOAA Fisheries currently has a national accounting of its Section 10/404 activities, and we have begun work on a computer-based interactive data storage and information transfer system. We are inviting our counterparts in other agencies to join us in this effort.

Harvest restrictions caused by pollution and the decline of stocks from habitat degradation are manifestations of the need to increase research and monitoring and to better integrate existing information now being gathered by NOAA's Line Offices and other Federal agencies. NOAA Fisheries, along with the other NOAA Line Offices, is currently working to improve NOAA's environmental information gathering, research analysis and dissemination capabilities. One objective is to provide decision-makers like the Corps with information to help predict what happens when habitat is degraded or destroyed.

The Corps' Enforcement Program:

Our staff does not carry out regular wetland surveillance to detect unauthorized activities; it is not our role to do so. However, when our personnel observe apparent violations they report those immediately to the Corps. The Corps is responsible for detecting and taking action against permit noncompliance, but as pointed out by the GAO, it does not have a comprehensive program to do so. Without a systematic, consistent surveillance program, it is often only by chance that there is detection of unauthorized activities. As a result, destruction of wetlands frequently goes undetected. When unauthorized activities are detected, the greatest deterrent is intervention by the Corps at the initial stage of an apparent violation. Possible violators are liable to fines and are discouraged from further actions. Upon consideration and/or completion of any necessary legal action, the responsible party may be required to restore the project or apply for an After-the-Fact permit (ATF). Yet, if the work has been completed or is in progress it may be impossible for NOAA Fisheries to fully evaluate damage and to recommend ways to lessen or eliminate adverse effects on wetlands.

We are concerned that applicants may find it easier to get a permit if they discharge fill and then apply for authorization. ATF applications may make up a significant portion of the public notices in some areas of the country and ATF applications often result in a permit.

ATF applications must not become incentives to circumvent the permitting process, because this could result in uncontrolled loss of wetlands. A clear policy must be established for dealing with ATF applications that is consistent with efforts to minimize adverse effects on wetlands habitat. Corps Guidelines should be used to prevent ATF authorization where it is clearly inappropriate, such as forbidding ATF authorization for repeat violators. In addition, consideration should be given to accompanying ATF permits by fines high enough to deter future violations.

Punitive action against unauthorized wetland fill can be a relatively ineffective deterrent if violators are rarely penalized. We encourage EPA and the Corps to more fully employ the administrative penalty authority provided in the recent amendments to the Clean Water Act. Violators fined sufficiently will help deter other potential violators. Restoration should also be required where appropriate.

The GAO recommends that the Corps should work with EPA to develop a coordinated enforcement program using resources of both agencies to provide for surveillance, inspection and penalty assessment when there are violations of Section 404 permitting requirements. Such a policy would provide the deterrent needed to reduce the rate of wetland loss and it is our understanding that a Memorandum Of Understanding (MOU) is being developed by those two Agencies.

We encourage the Corps and EPA to verify compliance with both project purpose and special conditions. Fill projects for water-dependent use, then used otherwise must be de-authorized and restored if wetlands loss is to be reduced. As with other unauthorized activities, inspection, revocation of permits, and administrative and other penalties should help deter future violations.

The GAO found also that EPA has not fully used its authority to overturn proposed Section 404 permits that cause unnecessarily adverse effects on wetlands. I have written to EPA suggesting that it examine recent Corps determinations that we view as contrary to the purposes of the Clean Water Act and inconsistent with EPA's 404(b)(1) Guidelines. I believe that EPA should examine the Corps'determinations more closely and, where appropriate, exercise its Section 404(c) authority.

The 404(q) Memorandum of Agreement:

The Subcommittee requested our views on the current Section 404(q) interagency Memorandum of Agreement (MOA) in facilitating cooperation and protecting the environment. We support the current MOA because it provides an administrative "due process" that does not otherwise exist.

Without serious Division involvement, contested District decisions are "leapfrogged" to Washington, at substantial cost to the applicant and the affected agencies. Corps Generals with Division command should be allowed to negotiate solutions with their counterparts in NOAA Fisheries, FWS and EPA.

Mr. Chairman, this concludes my prepared statement. I will be pleased to respond to any questions.

Mr. OBERSTAR. Thank you very much for picking up on some of those earlier points and responding to them.

We do have a vote in progress. Perhaps we could proceed for a few minutes until the second bells, after which we would post a recess for 20 minutes or half hour and then come back and continue with our hearing.

I greatly appreciate the very thoughtful comments made by both of our principle witnesses. I think they have been very helpful in illuminating some of the questions raised earlier.

I'm very glad to hear about the classification process going forward to come up with a definition of what a wetland is. I hope that in the process of doing so, Mr. Dunkle, that you will also establish various categories of wetlands, including the use of those wetlands or nature's own purpose designed in its own inimitable fashion and what the highest, best, or most useful purpose of that wetland may be.

Mr. DUNKLE. Mr. Chairman, we intend to deal with this by establishing criteria for quality and size of wetlands. The criteria will involve many factors but an area will not automatically be a wetland if a certain amount of moisture or type of soil or plant is there which is the problem that we have right now.

The technical scientific definition of a wetland is not very pragmatic and practical; we hope therefore, that the definition will be one that we can agree upon, and that when the Corps reviews a permit request it can use this definition to determine if it is or is not a jurisdictional wetland.

I'm sure that we will be forced to take those definitions and then establish some criteria as to their quality and quantity and acceptance.

Mr. OBERSTAR. I think that is very helpful, and I have a greater confidence level with hearing your explanation of the direction in which that review is moving.

Is there anything in that process that you think might require legislation, as Mr. Roe and I were discussing earlier, that might require Congress to come back then and write something new in legislation based upon these findings?

Mr. DUNKLE. Allow us to work cooperatively to set up a mechanism and a set of criteria. Once we do that, if it seems to be working, there is no need to enact more laws. If we can cooperatively develop and implement a definition, then I think we have done what you have asked us to do.

If, in fact, we cannot, or if, in fact, our definition is not acceptable to the other users out, then perhaps you will have to step in and make the determination as to which way you want us to go.

Mr. OBERSTAR. I think I concur in that view. To the extent in which agencies can resolve these differences, the public policy process is best served. And I think what we will do is reconvene this committee to receive publicly the product of this process of review and inter-agency cooperation and definition. I think that would be an appropriate point at which to have another look at the issue and think it through further.

You also said that there is a need for policy clarification. Poor policy means poor implementation. I concur. What aspects of policy, however, do you think need further clarification?

Mr. **Dunkle**. With respect to our agency, I think that we allow our people, through direction, to make decisions and to conduct appropriate investigations on which to base that decision. This policy approach basically says, "You are responsible. You are allowed to make this decision, and if it is not a good one, we will hold you responsible for that decision." We find that this approach works, and we use this approach only for wetlands, but for most of the things that we do.

A policy can be changed if it is not working, but when people see this approach and realize it is their area of responsibility, they are willing to do the investigation and make the recommendations knowing that they will be supported.

Mr. **Oberstar**. You weren't referring to policy as expressed in law that needs further writing?

Mr. **Dunkle**. No, sir.

Mr. **Oberstar**. Thank you.

We have only five minutes remaining on this vote. We will have to recess and return at approximately ten of one.

AFTERNOON SESSION

Mr. **Oberstar**. The subcommittee will resume. The Chair apologizes for this delay occasioned by the unexpected occurrence of an additional recorded vote on the House floor, which put us an additional 20 minutes behind.

The Chair at this point would like to recognize the presence and participation in the hearing of our full committee chairman, Mr. Anderson, who has been very supportive of the many hearings of this subcommittee, and we are grateful for his participation at this particular hearing on the 404.

The Chair would recognize the gentleman from California.

Mr. **Anderson**. Thank you, Mr. Chairman.

What he is really trying to say is that I'm very supportive of him, and every time he asks me to do something I do it. That's been since he was here working for Mr. Blatnik, and then chairman of all these other committees.

How many years have I been doing what you've been telling me? [Laughter.]

Mr. **Oberstar**. I think for 12 of those years it was working the other way around when I was on the staff. And for the coming years of your chairmanship it will be the same way. We'll be doing what you want.

Mr. **Anderson**. I just wanted, Mr. Chairman, to commend you for scheduling this hearing today, and I think it is vital that we hear from Washington experts on the administration of the section 404 program.

With this in mind I want to add that in my opinion it is equally important that we hear from those persons who must comply with the section 404 requirements on an every-day basis.

Earlier this year I wrote to Chairman Nowak, and then full committee Chairman Howard, to ask that a Water Resources Subcommittee hold a field hearing to discuss the 404 program and to hear first-hand from those persons who do face it and its requirements in their daily course of business. And for one reason or another this hearing, which was tentatively scheduled to be held in California this summer, needed to be cancelled. Hopefully before the end of this year this hearing might be rescheduled.

In any event, I think it is important that we hear from you and that everyone here continue to keep us informed of their views in this issue. As I said before, we want to hear what Washington and other areas tell, but we also want to know what happens and what they feel out there in those areas where we do have the problem.

I want to thank you, Mr. Chairman, for giving me this opportunity.

Mr. **Oberstar**. Thank you, Mr. Chairman. We gratefully acknowledge your participation and appreciate your good words. If there is any way we, in this subcommittee, can participate in and support your effort with further hearings we will certainly do so.

I would like to pursue, at this point, Mr. Dunkle, where we left off before the break, your comments about jeopardy finding by the resource agencies.

What do you and Mr. Brennan understand by "jeopardy," and how do you envision that question being called into play by the resource agencies and in cooperation with the Corps of Engineers?

Mr. **Dunkle**. Mr. Chairman, what I was referring to was that implementation of this concept would it make you a full player during the game. If you are only an advisor you do certain things, and this applies to law enforcement activities, enforcement of the 404 requirements, or protecting wetlands.

We are not a full player at that table; we are advisors. I am only suggesting that, in the wisdom of Congress, you might develop a method to allow us to be a full player in the hardball game instead of advisors at a softball game.

Mr. **Oberstar**. Does that require a change in law?

Mr. **Dunkle**. Yes, sir, it does.

Mr. **Dunkle**. I am not saying that what we would submit to you would be well-taken by all of the other Federal agencies, but I can tell you that what we would develop would put us in a better position to be full partners in the 404 process. This approach would provide protection to the wetlands, but would also ensure that the person seeking the permit has adequate and proper opportunity to be consulted with respect to conservation or mitigation measures that we only recommend now.

If we could work with the permittee early on, and with the Corps, and EPA—to develop proper approaches to mitigation as a partner, rather than a consultant, I think that the process would be more efficient. In this situation, a permittee would have a better idea of what would be expected, that is, he would not find himself just throwing money into a swamp, so to speak, and it would, I believe, be in the better interest of the resource and all users of the resource.

Mr. **Oberstar**. Further on the point of mitigation, if we had a fully-operative Fish and Wildlife Coordination Act—and by that I mean one that was carried out vigorously—with mitigation being conducted concurrently with construction activities, wouldn't we be saving a great many more acres of wetlands?

Mr. **Dunkle**. Yes. I am not sure of how that will be accomplished. But, we must remember that with authority comes responsibility. We must also be sure that we handle any authority you give us responsibly or we will encounter other objections and resistance. We try to implement the Fish and Wildlife Coordination Act working with the states and federal agencies that have the lead on any given permitted or authorized action.

Mr. **Oberstar**. It needs to be strengthened in many important respects, and I'm going to reintroduce the bill that I developed several years ago when I was actively serving on the Fish and Wildlife Subcommittee to strengthen and broaden the Fish and Wildlife Coordination Act. I hope we'll get some action on it.

Mr. **Dunkle**. Mr. Chairman, I would offer another note of caution. Oversight should be undertaken to ensure that the responsibility and the authority given to the Fish and Wildlife Service is not utilized to everything. There are responsible ways to protect a resource without pursuing a no-growth, "don't do anything" idea. The public needs to be assured that you are not saying, "Here is your opportunity to stop everything." We do not want that kind of opportunity.

Mr. **Oberstar**. Quite right. And I spent four years developing that bill with two very capable Congressional fellows from the Fish and Wildlife Service who worked specifically on that very point so that issues of that kind would be resolved in consultation process rather than through a hammered-down regulatory process.

Mr. **Dunkle**. Certainly, Mr. Chairman, if they worked for us and for you, they could not have developed anything that was not good.

Mr. **Oberstar**. One last question of Mr. Brennan. First, I was shocked at your report about the year-long investigation of illegally-harvested and shipped shellfish, including shellfish that is contaminated being shipped to market. That is just an astonishing revelation, and one that I hope your action has brought or will be bringing to an end.

You also brought to light a fact in your statement that 14 million acres of shellfish propagation have been closed. Is that correct? Did I—that was in your extemporaneous remarks. I made note of that.

Mr. **Brennan**. I may have mis-spoken, Mr. Chairman. I meant to say 2½ million acres in our Southeast Region. It's still a very large number.

Mr. **Oberstar**. I see. That's 2½ million, not 14 million.

Mr. **Brennan**. Right.

Mr. **Oberstar**. I particularly made note of that. It's still an enormous quantity.

Mr. **Brennan**. Absolutely.

Mr. **Oberstar**. Is that coastal wetlands, largely? Marshlands and swamp area?

Mr. **Brennan**. Yes, sir. And it is also tidal areas, of course.

Mr. **Oberstar**. Yes.

Mr. **Brennan**. That is alluded to in the paper that I submitted for the record. There is a much larger detail in there.

You know that there used to be a situation where the miners, for their safety, would take canaries down into a mine to make sure that the air was safe to breath and that there wouldn't be an explosion. When the canary stopped singing, they had to consider that they were in a critical area where there might be real problems coming down the line. And, of course, when the canary died they got out of the mine.

Well, we used to hear the expression, "Happy as a clam." Clams are not happy. They're not singing. They're trying to tell us something about our wetlands.

Mr. **Oberstar**. Yes. I think that's very true. The response of nature is an early warning signal for man, and we have to keep those warning signals—often signals that result from our own depredations upon the land.

I have a couple of other points I want to raise, but I will withhold at this time and yield to the gentleman from Pennsylvania, Mr. Clinger.

Mr. **Clinger**. Mr. Chairman, Mrs. Johnson has a pressing engagement, and I would like to yield to her at this time.

Mr. **Oberstar**. I'd be happy to yield to the gentlewoman from Connecticut.

Mrs. **Johnson**. Thank you very much, Mr. Chairman. I will be back later, but I do have a rather rigid time line for the next few minutes and I did want to expand on a couple of things that came out in your comments.

One thing I would like to point out is the issue of definition of wetlands, because the issue of mitigation is going to be looked at in the context of that definition. And it appears to me that there is a good deal of confusion about this issue of definition.

Would either of you, Mr. Dunkle or Mr. Brennan, care to comment on whether or not you think that in giving credit for wetlands we ought to give credit, also, for the uplands that are essential to their existence and their ecosystem, and to the open water that is usually essential to their well-being?

Mr. **Brennan**. With respect to uplands, if you mean interior lands well removed from the coastline, I would, of course, defer to Mr. Dunkle. The thought is that you can replace habitat—hopefully you can replace habitat by replanting turtle grass or reproducing a habitat for the fisheries that is equal to the habitat that will be taken.

The problem is that I don't think we have proven at this point that that is a successful and effective technique. We're looking at it, and that paper by Doctor Cross which I submitted for the record contains a fair amount of information on that. I think it is a very revealing paper. But the jury is out yet.

I don't think we want to look just at acre-for-acre. I think you want to look at the quality. Is this going to support and produce the same amount of clean, wholesome fish and shellfish? That's my perspective from looking at it from the coastal waters point of view.

Mrs. **Johnson**. Yes.

Mr. Chairman, at this point, I would like to submit for the record a paper prepared for the Army Corps of Engineers by Robert Pierce, Mary Landin, and Hollis Allen on the subject of artificially created wetlands, although that wasn't the point of my definitional question, which I will come back to with Mr. Dunkle.

Mrs. **Johnson**. The other half of that issue is the controversy over whether wetlands can be constructed and whether those that are constructed are of equal value to those that are naturally made. This paper takes the position that you can construct wetlands of equal merit. It gives some very good rationale and information about why that is possible and where it has proved out.

That issue of mitigation and whether we can allow artificial construction to be a part of our mitigation program is certainly something that we have absolutely got to make a national decision about. In our State we are being told, yes, you can. On the other hand, when we say, okay, what do you want? then the Feds say, well, you tell us what you are going to do; then we will tell you what we want. We get into this terribly time consuming dialogue where everybody is making suggestions because there is no standard, and people aren't sure what they are going to do.

I would like to get back to the definitional issue before we go onto to the mitigation issue—if I may, Mr. Brennan—because I think it is terribly important. If your definition is only going to be wetlands in the sort of narrow sense that I understood it, marshes and soppy soil, then States get credit for very little.

In a highway project that is critical to my district—and is very old and very small—the original permit allowed us to dig out some uplands and extend the wetlands. By the time we got back to build the highway eight or ten years later, the definition has changed. They don't want to erode the uplands associated with the wetlands in order to extend the wetlands.

Now frankly, I agree with this sort of more modern definition. But if that uplands is going to be kept in place because it is part of the ecosystem of the lowlands, then I think we also have to give States credit in a little different fashion for environmentally preserved wetlands with their associated uplands.

What I wonder is: in this issue of definition that is going on among the agencies, has this issue—including attributing some credit for States to the open water associated with where you create open water or upland fringe—been discussed, Mr. Dunkle?

Mr. **DUNKLE**. Mr. Chairman, with your permission, I would like Dr. Morganweck to attempt part of that answer. I have a couple of comments. Is that acceptable?

Mrs. **JOHNSON**. Yes.

Mr. **OBERSTAR**. Why certainly, Mr. Morganweck, please.

Mr. **MORGANWECK**. I would have a couple of comments on it.

First, we are working on a definition of wetlands which, of course, does not include uplands in the delineation. Obviously, we are trying to delineate the boundary between wetlands and uplands.

You also asked if there should be some credit given for preserving uplands in relationship to those wetlands? The jurisdiction in the Clean Water Act pertains to water in wetlands. As a result, we feel that credit would probably not be appropriate. Allow me to use an example, as you did.

With respect to the highway example that you mentioned earlier, let me illustrate how we think the project review process ought to work, and how mitigation should fit into it. The example highway had "S" curves in it and had to be engineered safely. We agree with that.

In the process of mitigation, which we believe to be a series of steps, the first step is to try to avoid as many of the impacts to wetlands as is possible through location or placement of the roadbed.

We realize in cases like this that you cannot always avoid all of the impacts. Therefore, we move on to the second step of our mitigation process, which is to minimize the impact. In the next step, we try to minimize, through design of the roadbed, the impacts on wetlands to the greatest degree possible.

We may then move to the next point if despite avoidance and minimization, we are still impacting wetlands, and we need to do something more. In fact, we can move on to what we call compensation, which is, as you noted, creating a new wetland in place of the one that is being affected by the highway project.

You have referred to a paper that you have submitted for the record which presents the positive aspects of new wetlands and indicates its technical feasibility. In fact, the scientific literature on this subject is somewhat mixed. In certain situations, we can do it. In other situations, we are not realizing as success.

The Fish and Wildlife Service's approach to mitigation takes into account the very points that you were making. We also consider compensation. We do consider minimization and avoidance while still allowing that highway to be built safely.

Mrs. JOHNSON. Yes. I think the point that I am making—and I am familiar with that process that you described. I think it is a very healthy one. This is the problem. If the definition of wetlands is, in a sense, the old traditional definition of marsh and mud—yet the Agency has adopted for purposes of enforcement the broader definition of also preserving the associated wetlands, when in a small land-locked situation excavating that may be the only alternative to mitigate to increase the wetlands—then you tie our hands from two directions.

I think what you are really saying is that these are separate issues. I think the committee ought to see them as separate issues, but I think they are equally important issues. In other words, define wetlands and then determine whether States ought to get some credit for those lands that they must keep undeveloped for the purposes of feeding the wetlands that in other times might have been used to expand the actual wet area.

I think those fringe decisions that will emerge more sharply from a definition of wetlands are something we are going to have to address ourselves to. It certainly was that change in Agency definition, in Government policy definition—and you see this is all slippery because it is interagency and it is not the Government. I mean that nobody has made the policy. In fact, the change in definition has moved this plot of land and this project from a permit eligible status and a go to an ineligible status and a red light after the contracts were let.

So this issue of definition is enormously important because out there different definitions are actually being adopted and are compromising projects in an irrational fashion. I agree that we have to make better definitions. But we can't ignore them, as we make the definition about wetlands, making some auxiliary provisions about auxiliary and related lands. Beyond that is the issue of mitigation.

Mr. **Morganweck.** I have one comment. What I said does not in any way diminish the importance of those uplands surrounding the wetlands in terms of maintaining their value. Certainly, the small watershed that surrounds a wetland is very important in terms of the quality of water that is draining into the wetland from rainfall and runoff. We are therefor concerned about what happens to those uplands.

My statement referred to the fact that we are trying to delineate the boundary between wetlands and uplands and treat the boundary in one manner, versus determining wetlands for review under the section 404 program.

Mrs. **Johnson.** Okay.

Briefly, each of anyone else who wants to comment.

Mr. **Brennan.** Yes, Mrs. Johnson. Let me make sure that I am clear on what I said. I believe that the jury is out on whether or not you can mitigate by compensation at another place offsite with plantings of marsh grass or other grasses.

The fact that you may plant some grass that grows does not mean that you have been successful in compensation. The substrate often is important. There are other factors having to do with the currents, the tides, the hydrology of the situation so that just because you are able to plant some grass in another area does not mean that you have compensated.

Mrs. **Johnson.** I understand that, yes.

Mr. **Brennan.** You have to go back there to look and see if the population that you were concerned about has established itself in that area. I am not saying that that is impossible. In fact, we are working on that. We are doing experimentation on that. We are doing controlled experiments on it.

My suggestion to you is: don't believe that at this point it is clear that you can do that. I think that that issue is not yet resolved. That was my only point.

Mrs. **Johnson.** Well, that's very interesting. I will keep that in mind. That is not the point of view that the agencies are taking in pressing—at least my State government—to deal with the problems that confront a fairly small State.

Lastly, I would just leave this with you for comment, if you care to. Do you feel that there ought to be any ability to tradeoff inland wetlands for coastal wetlands since in many ways, particularly in small States, many of our inland wetlands don't serve us very well and our coastal wetlands are enormously important. In mitigation, if we should go that direction, it may be more useful to expand the tidal wetlands than the inland wetlands. I wonder what you think about tradeoffs of that sort?

Mr. **Brennan.** Let me say this at the risk of sounding very bureaucratic and concerned only about coastal wetlands. First of all, coastal wetlands run about one-half percent of the acreage in the United States, less than 1 percent, certainly. Inland wetlands run about 5 percent. So just on the basis of their scarcity and rarity, I would say that, in general, coastal wetlands appear to be more valuable. In addition to that, the coastal area of the country is where the population is taking place. It is where the stress is being placed upon the waters.

My feeling would be that if you wish to mitigate inland wetlands with preserving coastal wetlands, I would think that that would be an appropriate step. If you wish to go the other way, I would have some real difficulty with that, frankly.

Mr. Dunkle may have an entirely different view, but I am giving you the view of the National Oceanic and Atmospheric Administration Fisheries.

Mrs. **Johnson**. Thank you.

Mr. **Dunkle**. What I have been thinking about is that the Clean Water Act indicates wetlands. It does not specify whether they should be estuarine in nature or, if I may say, upland wetlands. It simply says wetlands. We would not want to be trading "wetlands" for "wetlands".

It may be easy to say that this estuarine area is much more important than a small area of upland wetlands. Therefore you can develop the upland area but you cannot develop the estuarine wetland. I would be hesitant to make that decision without looking at both areas and determining their importance. I think that a small wetland area would be as important to the overall health and wealth of the resource in the upland part of Connecticut as would the marshlands or the saltwater areas.

Mrs. **Johnson**. Thank you.

I am certainly not recommending in law a blanket trade policy. I think that Mr. Roe and I are both talking in a sense about more regional approaches. This will be one of the aspects that we have to deal with, although none of them can be dealt with outside of the particulars of the particular situation.

Thank you very much.

Mr. **Dunkle**. In making that type of determination, Mrs. Johnson, we would want to sit down with your State Fish and Game Department and discuss their goals? If the State officials indicate that they do not care about upland areas and that the coastline is the most valuable area, we would treat that, in our bureaucratic language, as a category III area and come to some conclusion with the State. I believe firmly in State's rights.

Mrs. **Johnson**. So you have the power to do that now. Is that what you are saying?

Mr. **Dunkle**. Yes, we could. But we would have to develop these determinations with the State.

Mrs. **Johnson**. I don't want you to go in and do it. Don't get me wrong. Thank you very much.

I yield back.

Mr. **Oberstar**. Time has expired. We do have a vote in progress, so we will recess. We will return to conclude the questioning for this panel.

Without objection, the unanimous consent requests of the gentlewoman from Connecticut will be agreed to. The document entitled, "Artificially Created Wetlands: Myth or Mysticism", will be placed in the appendix to this record. (See page 529.) Also, for the appendix, in an article from the May–June 1988 issue of the National Wetlands Newsletter entitled "An Assessment of Wetlands Mitigation Practices in Washington State." (See page 543.)

Mr. **Oberstar**. Pending our return, I would like to ask the panel, particularly the Fish and Wildlife Service, to ponder this question: What might be the essential elements of a program to control the cumulative impacts of wetlands losses or changes. What are your respective services doing to respond to this situation?

[Recess.]

Mr. **Oberstar**. The subcommittee will come back to order.

Prior to our vote, I posed a question. I don't think it needs to be restated. Let me receive Mr. Dunkle first.

Mr. **Dunkle**. I Mr. Chairman, I have a couple of points that I would like to mention, and, with your permission, have Dr. Morganweck comment on some specific things that we are doing.

Mr. **Oberstar**. He is free to respond as you designate.

Mr. **Dunkle**. Thank you, sir.

We think that cumulative impacts are important and we are engaged in some activities that are necessary to determine these inparts. The critical element of cumulative management is a resource goal. We believe that if you do not have a goal then you do not achive anything. If we establish that goal, then it becomes the benchmark against which the resource status and reland trends will be determined.

In section 101 of the Clean Water Act, Congress has very clearly identified the goal of the act to restore and maintain waters of the United States. This objective appears, to me, to translate into a no-net-loss goal for the wetlands and waters of the United States.

I would mention at this point that, while I do not want to disagree visibly with my colleague at the table, I do not view no-net-loss as meaning no-growth. No-net-loss does not necessarily mean that you do not do anything. Instead it means that if you are going to lose something, then you make proper and definitive steps to replace or to enhance rather than just assume a loss.

I want to be sure that you understand, that when I refer to no-net-loss of wetlands or water quality, I am not indicating no growth or no use, of the resource. We are talking about innovative and creative approaches to replacement and enhancement of wetlands which would be filled or undergo some type of other use.

In the Section 404 program then, it would be possible to assess and control cumulative impacts by careful adherence to the no-net-loss goal. Given the state of the art in impact avoidance and compensation, I think that this goal is obtainable.

I would like Dr. Morganweck to comment on a few of the specific activities that we have been involved with.

Mr. **Oberstar**. Dr. Morganweck, would you summarize your comments?

Mr. **Morganweck**. Again, we feel that it is very important to have a baseline against which to measure the progress of any program. In most situations, you have to know where you are to know which direction you are moving in the future, and this situation is no different.

We would then look at the trends over some period of time to see whether we are getting closer to this goal and to determine how well the program is progressing.

We also think that it is very important to monitor the situation over time to determine if the program is moving in the direction that it is supposed to. We would also want to ensure that the program is being implemented consistently and that mitigation recommendations and considerations are being incorporated in this program.

In the Fish and Wildlife Service, we have been involved with several specific activities. Since 1984, we have been reviewing mitigation recommendations by our field offices to determine how successfully they have been implemented in the field. We have a number of related individual reports, and we have created a database related to these reports. We have determined mixed success since in some cases prescriptions work, and in other cases, they do not.

I think that what you have heard today is that there are several aspects of wetland ecosystems that we do not yet understand. However, we are working to answer these questions.

We have provided guidance to our field biologists on cumulative impact management, and we are giving them guidance in terms of how to formulate and evaluate mitigation recommendations. We are involved in these activities in order to determine how well we are doing in the arena of providing mitigation recommendations.

Mr. **Oberstar**. Thank you very much. I appreciate the response.

I think, too, that I must come back to a comment Mr. Brennan made earlier that mitigation doesn't always work. You can't always replace in all cases—some cases you can—the marsh grass that has been lost. You cannot replace in many instances that specific kind of habitat that is being converted to some other use.

We do have to think very carefully about the kind of mitigation, not just acre for acre, but quality of wetlands for quality of wetlands that is being replaced in case of development. I think that is what you had in mind, if I understood your comments.

Mr. **Dunkle**. Exactly.

Mr. **Oberstar**. A final question to each witness. How much weight do you feel the Corps of Engineers gives to the comments in the permitting process made by your respective agencies? Mr. Brennan?

Mr. **Brennan**. This is a difficult question to answer on a comprehensive basis. Frankly, if we look out into the northwest area where the public concerns are—and salmon, for example, is a very important resource. Somehow, I think that that district has been sensitized through the salmon issue to the need to be very cautious as they proceed. I think we have had a high degree of success in getting our recommendations accepted in that district.

If you go down to Jacksonville, we have not been as successful. I don't know what it is. Why is there this mixed rate of success? It may be something to do with the people involved. It may be just the perception of people generally in one area or another about the importance of wetlands. I just can't say. It is clearly uneven. That is about all I can say. It has been very good in some areas. In other areas, not so good.

Again, as Mr. Dunkle said, our function is to give the expert advice of the biological community as to what we think should be done. The Corps, of course, has to take that into account. It has to take into account other factors in reaching its decision.

Mr. **Oberstar**. Thank you. Mr. Dunkle?

Mr. **Dunkle**. Mr. Chairman, I think that our working relationship with the Corps is very good. At the field level our people discuss and talk back and forth regarding issues. We make the best recommendation to the Corps that we think is possible, both in terms of whether the project should be constructed, and what kind of mitigation should be considered for that project. We then step back to allow the Corps to consider other factors that they have to consider and the direction they have been given by Congress.

The Corps does have to take into consideration various factors as part of its public interest review, including factors that are different, perhaps, than ours. I think the track record shows that in most instances a decision is reached and the resources are considered.

In those instances where we do not reach a consensus, we start the elevatioin process and hope to reach a consensus that we can agree upon. We do not always get what we want and the Corps does not always get what it wants. I hope, however, that the poor citizen is not being done in.

We stand very strong and hard for wetlands protection. Our suggestions, although not always accepted, are incorporated in the majoirity of instances.

Mr. **Oberstar**. On the point of disagreement, GAO was critical of the process. GAO said that in a significant number of cases, the resource agency, certainly at the field level, feels discouraged from appealing a negative ruling by the Corps. Do you feel that the process is weighted by bureaucratic shuffle or something else in that direction?

Mr. **Dunkle**. Yes, sir. The process is weighted and difficult. If you are confronting 20 consultations and a situation which may need elevation develops, it can require a lot of your time. I think that both Agencies feel strongly that we need to find a better way to resolve differences.

That is why changes to the current Memorandum of Understanding to expedite the process are under very serious consideration. One issue is whether to Foward a request for elevation all the way up to the Assistant Secretary and then back down again?

I think that there is a better way to carry out the appeal process that is quicker and that gives people the feeling they are not just treading water. I think that the perception is that the process is almost impossible to carry out and we need to change that perception within our own Bureaus.

Mr. **Oberstar**. That is something that can be done administratively, among the agencies, among brethren.

Mr. **Dunkle**. Mr. Chairman, if we can not do it, then I think you have every right to expect that you should step in and do it for us.

Mr. **Oberstar**. Mr. Brennan?

Mr. **Brennan**. Mr. Chairman, with respect to the process that is set out in the Memorandum of Understanding, I understand that several years ago there was a sequential process. If there was a disagreement at the district level, it went up to the division level. Then it went up to the Assistant Secretary's level for resolution; a sequential process. People looked at that and said, this process is too long and too cumbersome. Let's streamline the process.

What you have now is a system whereby the Memorandum of Understanding suggests that you make the resolution at the district level. The division level looks to make sure that, in fact, there was dialogue at the district level, but doesn't get involved in the negotiations. Then, in some few cases where there is still disagreement, it goes up to Washington.

When it gets up to Washington, it is at the Administrator of the Under-Secretary of NOAA's level. That is a political level. We don't do those things lightly. It has to be an important issue.

I think what has happened is that in attempting to streamline the process, we have succeeded in satisfying no one. The applicants apparently—from what I have heard this morning—are dissatisfied with how long the process takes now that we have removed a step from it. Our biologists feel that it is very difficult if they can't reach agreement to get agreement at a higher level.

I frankly don't know what to say about a process like that. I think we have tried to do it sequentially. We have tried to streamline it so that if there was a disagreement, you would immediately have an opportunity to go up to the highest level. That does not seem to be working. We don't have any more elevations than the Department of the Interior does. I think what happens is you get this uneasy feeling and you get protracted negotiations which ill serves the public and frustrates everyone.

Mr. OBERSTAR. Thank you very much.

I yield to the gentleman. Mr. Roe?

Mr. ROE. Some of the decisions are frivolous. In fair play, in trying to use a great deal of decorum, some people make up their minds, whether you like it or I like it, that it is going to be their cause celebre. That is what they do. Believe me. I have two cases which I am going to carry to the highest court simply because they are frivolous in their approach. That is what makes it so difficult for us.

If the person comes and has a legitimate problem, and they are not willing to do anything about it, that is one thing. But how can I justify to a community where I have spent $32 million, plus $18 million more—which every level of government approved, both the State government, the Federal Government, the whole bit—and I have some nitwit sitting there saying to me, well, we can't move over a quarter of an inch because if we do the world is going to come to an end. Now that doesn't make any sense.

What would they have us do with the property? This has been going on for something like—that one—about 18 years. It means about a billion dollar rateable to that community. We are willing to give up three-quarters of the land. They are arguing over a quarter of an acre for the last nine months. Can you believe that? Now that I consider to be frivolous, totally frivolous.

Then they tell me that that is a natural area. I say, bologna. It is not a natural area. That area was dug out when they were digging to take the clay out of this clay hole to make bricks. So it is not a pristine area. Now that goes on and on and on at this level, that level, this level, that level. You talk about being frustrated. You will pardon my indulgence.

Who do you talk with there? Who makes the decision at that point?

Mr. Brennan. Well, I can't answer that specifically because I don't know that the factual——

Mr. Roe. Well, I wrote your name and his name down. I am going to meet with you later on to go over this very issue, very definitely.

Mr. Brennan. He is looking at me.

I would assume that it is not in the estuarine area, Mr. Roe. So you will have to talk about Mr. Dunkle about that. We are only concerned about the really important wetlands in the coastal area. [Laughter.]

Mr. Dunkle. I would like to respond, Congressman, by noting that I spoke to you earlier and we will get together and solve that problem.

Mr. Roe. Well, you can't blame me for wanting to get that point on the record, did you?

Mr. Oberstar. Thank you very, very much. We greatly appreciate your participation; the thorough, professional, and objective responses; and the thoughtful consideration.

We will follow up on the matters that we have already discussed—the points of review that you have discussed with us—reaching common policy and a common approach in many areas where the agencies working amongst themselves can resolve problems. We want you to do that.

We will, I assure you, follow up with a further hearing to review the results of that process of mutual consideration.

Mr. Dunkle. Thank you, Mr. Chairman.

Mr. Brennan. Thank you.

Mr. Oberstar. Thank you.

We are going to have to make one deviation from our program. We had intended to bring the Assistant Secretary of the Army and the United States EPA representative right at 2:00 p.m. However, because we had an intervening vote which put us off our schedule, we have another witness who is from out of town and who has a plane to catch. We had committed that she would be able to make that plane.

So at this point, we will take Ms. Jan Goldman-Carter for the National Wildlife Federation for roughly 15 minutes. We will hear your statement, pose questions, and then proceed to our next panel.

[Witness sworn.]

Mr. Oberstar. We have your complete statement, which is a very thorough documentation of a wide range of issues. Of course, we will include that in the record in full. We have the expectation that you have a briefer summary than all the accompanying documentation, all of which is vitally important and contributes significantly to our understanding of the 404 issue.

TESTIMONY OF JANICE L. GOLDMAN-CARTER, COUNSEL, FISHERIES AND WILDLIFE DIVISION, NATIONAL WILDLIFE FEDERATION

Ms. Goldman-Carter. Thank you, Mr. Chairman. I appreciate your indulgence in the timing.

Mr. Chairman, and members of the subcommittee, the National Wildlife Federation appreciates the opportunity to testify today.

The National Wildlife Federation and our 51 affiliate organizations have, since their inception in the 1930's, maintained a strong commitment to the protection of our Nation's wetlands. We have contributed our expertise and our views on wetlands protection here in Congress, in the courts, and in the agencies at virtually every opportunity. We consider ourselves partners in a national effort to preserve one of Nation's most vital natural resources. Despite all of our efforts, we continue to lose wetlands at an alarming rate.

In the meantime, the 16-year-old battle to get the Corps of Engineers to control the discharge of dredged and fill material plays like a long-playing soap opera. The fact of the matter is the 404 permit program is the step-child of the Corps of Engineers, a fact that will not change without clear direction from Congress.

Congress gave the 404 program to the Corps in 1972. The Corps immediately set about trying to narrow its responsibilities to fit its traditional role as protectors of navigation. There is a long and torturous history between 1972 and the present day, which I won't belabor. But suffice it to say that the Corps has consistently made an effort to reduce its geographical jurisdiction over wetlands and the activities which are controlled under the dredge and fill program.

The regulatory reform effort stimulated additional efforts by the Corps to limit its own jurisdiction over discharges into wetlands and to "streamline" the 404 permit process.

These reform initiatives led to oversight hearings in Congress in 1982, 1985, and 1986. We testified at those hearings. The record from those hearings clearly demonstrates a number of problem areas.

One is the Corps' refusal to accept its wetlands protection mission and its insistence upon speedy permit processing.

Another is the Corps' use of the commerce clause to limits its jurisdiction over what are called "isolated" or nonadjacent wetlands.

The Corps' restrictive definition of fill material to limit its jurisdiction over dredge and fill activities.

The Corps' restrictive delineation of wetlands boundaries in order to limit the extend of regulated wetlands.

The Corps' broad interpretation of 404 exemptions.

The Corps' broad interpretation of its general permitting authority in order to limit the number of individual permits reviewed.

The Corps' failure to deny permits where practicable alternatives are available.

The Corps' failure to require mitigation measures for unavoidable wetland losses which ensure compensation for lost resources.

The Corps' and EPA's failure to enforce 404 for both unpermitted and permitted discharges.

The lack of staff and other resources in the Corps and EPA to properly administer the 404 program.

These problems, many of which were identified more than five years ago, persist today. The GAO report documents some of them. While the results of the report are troublesome, perhaps the most disturbing is the fact that none of this information is new. It simply represents the latest chapter in the 404 saga. Most importantly, the GAO report confirms our statement in the oversight hearings three years ago. That is:

That our Nation's wetlands will not be protected and will continue to be lost, unless and until Congress does three things.

First, shifts the responsibility of the 404 program from the Army to a Federal agency with greater interest in wetlands protection;

Second, provide sufficient resources to that agency to properly enforce the law; and

Third, broadens the activities regulated under 404 to control channelization, excavation, drainage, clearing, flooding, and dredging of wetlands and other waters of the United States.

The Corps enforcement record is but one episode in the 404 saga. In the 1985 hearings, the Corps acknowledged that it had substantial improvement to be made in the enforcement area. Three years and thousands of wetlands acres later, nothing has changed. The modus operandi is the same example after example.

As the GAO report confirms, the Corps is not conducting field inspections and surveillance to identify either unauthorized fill activities or to enforce permit conditions. The primary reason offered for these omissions is the high priority given to processing permits.

Among the more disturbing of GAO's findings to the Federation were the interviews by GAO with at least two Corps districts which indicated that active surveillance was not being conducted because it would uncover too much additional work for the regulatory program. That is not the way to protect wetlands.

In the event that the Corps finds an illegal discharge, it may issue a cease and desist order. Violation of such orders by the discharger, however, is only likely to spawn further inaction and further cease and desist orders. Although it has the authority, the Corps rarely enforces the law by taking the violator to court. Most commonly, once the illegal fill is in place, the Corps gives its blessing with an after-the-fact permit.

This process of sanctioning wetlands destruction by placing figurative headstones on the burial grounds of our Nation's wetlands must be curtailed. Moreover, if this is the level of enforcement that the Corps invests in protecting wetlands under 404, where is the deterrent? Why should anyone obey the law?

The Corps defense to this record is in large part that "the Corps has traditionally viewed seeking voluntary compliance rather than punitive legal action as 'good government.' "

Sanctioning wetlands destruction is not good government. It is not government at all. If the United States enforced the tax laws the same way it is enforcing its wetlands laws, this country would be bankrupt. At this rate, it may soon be bankrupt in terms of its wetlands resource account.

In terms of enforcement, we specifically recommend that the Congress direct the Corps to place greater emphasis on enforcing permits once issued; that the Corps tailor its administrative and legal responses in order to deter future illegal activity, rather than simply bringing the violator into compliance; that EPA begin to increase its field presence and make more aggressive use of both its 404(c) veto authority and its enforcement authority. Finally, Congress must provide both agencies greatly increased resources if this recommendation is to succeed.

Our written testimony describes in voluminous detail many of what we see as the shortcomings in the 404 program. It is a fairly long list. I won't belabor those. But I would like to briefly summarize and give you the specific recommendations that we found as a result of our review.

In general, there is a clear consensus—including within the Corps itself, I believe—that the 404 program is not regulating the continuing loss of wetlands in this country. While the failure of the 404 program is attributable in part to statutory limitations on the regulatory authority of the Corps and EPA, and on lack of resources, it is largely attributable to the Corps' persistent efforts to deregulate wetlands destruction as well as EPA's failure to use its veto authority and enforcement authority aggressively.

As a starting point, we suggest the following specific administrative changes in the program:

One: Congress should direct the Corps to base its permit decisions on the 404(b)(1) Guidelines.

Congress should direct the Corps to shift the focus of Federal wetlands regulation from paper pushing to conservation.

Congress should direct the Corps to abandon the commerce clause test for determining wetlands jurisdiction and use the wetlands definition which is tried and true.

Congress should direct the Corps and EPA to abandon the Solid Waste Memorandum of Agreement and adopt a joint definition of fill which requires a 404 permit review for any fill regardless of the purpose of the discharge.

Congress should direct the Corps to revoke nationwide permit (NWP) 26 and revise the NWP program to require detailed predischarge information from applicants and to enforce NWP conditions.

Congress should direct the Corps to adopt a sequence to no-net-loss mitigation policy that requires: first, avoidance, then minimization and, as a last resort, compensation for unavoidable losses to achieve no-net-loss of wetlands acreage and values.

Congress should direct the Corps and EPA to increase their enforcement efforts as outlined previously.

While we offer these administrative recommendations, we submit that protecting our Nation's wetlands will not occur if business is conducted as usual. It will not occur by fine-tuning or retro-fitting the existing 404 program.

As we stated at the outset, if we are going to conserve our Nation's wetlands, we are going to have to shift the program to an agency with a greater interest in wetlands protection. We are going to have to provide adequate resources to that agency. We are going to have to broaden the activities covered by Section 404 to control the channelization, excavation, and other manipulation of wetlands which are leading to their destruction.

Thank you.

Mr. **Roe** [assuming chair]. Well, the Chair wants to thank the distinguished gentlelady for her presentation.

Let me ask you two points. One, you summarized three gradations, if you like. Denial was one. Then you had number two, minimize. The third one you had was compensation. Do you recall it? Tell me what you mean by that.

Ms. **Goldman-Carter**. When I refer to compensation, I am specifically talking about either creating wetlands or enhancing degraded wetlands. Included in that area might also be the restoration of wetlands that have been previously manipulated.

I agree with a lot of the other testimony here. I would go a little bit further and say that this is an area that holds promise in terms of reaching a no-net-loss policy without a no-growth plan.

On the other hand, all the information we have been able to obtain is that it is a true art at this point. It is not a tried and true practice. We are actually running into many problems. The Federation is trying to take an active role in providing sort of a clearinghouse role in this area of creating and restoring wetlands in order to try to move this debate along. But frankly we are finding serious problems with the ability to do this.

Mr. **Roe**. This thought occurs to me. In effect, our wetlands 404 permit program really grew out of topsy is what has happened out of that; court cases and the whole bit. We really haven't had a true wetlands piece of legislation that has had the full-blown exposure that other bills have. Would you say that that is basically fair commentary?

Ms. **Goldman-Carter**. I agree that we need to have something that is comprehensive, thought through, and which has not evolved over time. This is what has happened with the 404 legislation.

Mr. **Roe**. That is where I am coming from. In other words, it seems to me, in candor, if one looks at the comments made earlier this morning, I think that one is: we really don't have an accepted definition by all parties of interest in what we consider wetlands to be. I think that is fair commentary.

We really don't have an inventory. I don't know how—for example, the Corps comes along and has one designation on a piece of land. Well, we figure of that 35 acres that 7.5 acres are wetlands. Then the Fish and Wildlife Service comes along and says: well, we don't agree. We figure it is 9.5 acres. Then you have to argue that out in between.

There are no basic facts to start to deal with, if you understand what I am trying to say. Wouldn't it be reasonable to come up with a more revised wetlands law that had teeth in it? Wouldn't it be sensible to come back and say, we have set specific definitions so that everybody is playing in the same ballcourt? Why should there be a confrontation between the Corps and the Fish and Wildlife as to if there is some kind of—it either is wetlands or it is not, I would assume. Is that wrong?

Ms. **Goldman-Carter**. Congressman Roe, I believe that the wetlands definition that has evolved through the regulatory process is a good one and is a well tested one. Unfortunately, it is not in the legislation.

Interestingly, it is in essence the definition that has been adopted by Congress for the Swampbuster legislation, the Emergency Wetlands Act. I think it is a good one. I think the agencies are very close to working out a uniform delineation methodology. There will always be some margin of variation in where a wetlands line is drawn. But I don't think that is at all arbitrary. I think we are very close to a good definition. I agree that it would be nice to have it in the legislation.

Mr. **Roe**. Well, I think the one thing—if the Chairman would yield—that is in my mind is whether or not we can doctor this thing up—the no-net-loss, the cumulative effect, and so forth—without dealing with it as an issue being the wetlands issue; rather than doctoring this and that, I push Mike, and so forth.

Mr. Chairman, take your chair back.

Mr. **OBERSTAR**. All right.

Mr. **ROE**. Thank you.

Ms. **GOLDMAN-CARTER**. Thank you.

Mr. **OBERSTAR**. I thank the gentleman from New Jersey for taking the chair while this vote was in progress.

I don't want to cover ground that Mr. Roe has already covered. One of the questions that arose during earlier testimony was that of the value of replacement wetlands. We have testimony from the NOAA witness that it is very difficult to replace certain wetlands. You really have to be concerned as an Agency, as a resource watchdog, about the quality of the replacement lands being offered in place of a wetland that has been removed or altered in some significant way. What has been the National Wildlife Federation experience with replacement wetlands? That is mitigation as we call it.

Ms. **GOLDMAN-CARTER**. Discouraging is probably a one word answer.

As I told Congressman Roe, we have not taken the hard line position that absolutely under all circumstances created wetlands are bad and because they are not natural they won't adequately contribute to the resource base. We are trying to take an active and a constructive approach to that. We are trying to act as a clearinghouse for scientific information and advance the art and science of wetlands creation.

Frankly, we are running into the same experience as that of the NEMPH's testimony—which is in the record— will show. That is that in many cases it is just not working.

In the prairie pothole area that you are from, we are finding successful efforts to restore small prairie potholes that have been ditched. Restoration seems to work better than creating wetlands from scratch. So we are going to continue to work along those lines.

In the meantime, that is why we think there has to be such a focus on identifying where the wetlands are through mapping, educating the public, and trying to avoid them at the outset. We can't rely on the creation of wetlands to maintain our wetlands base.

Mr. **OBERSTAR**. You make a recommendation that Congress should transfer the 404 program to an agency prepared to protect wetlands. Do you have an agency in mind?

Ms. **GOLDMAN-CARTER**. I think it is pretty obvious that the agency in mind is the EPA. I don't think there is an easy answer to the question though. I don't necessarily suggest that that will work.

We have what I think is a very difficult problem. I know the Conservation Forum that Governor Keane is chairing is dealing with this problem as well. The problem is that really at this stage the technical field expertise on wetlands delineation and permitting enforcement is with the Corps of Engineers. I was a Corps of Engineers myself. I know those people are good. That is where the expertise and the resources are.

On the other hand, the history suggests that the Corps of Engineers never has had and probably never will have the commitment to use those resources to protect wetlands. Because of that, my inclination at this point is to suggest that that authority should be shifted to the Environmental Protection Agency. They should be given the resources to do the job right.

I know that the Conservation Forum report is coming out. Their report should be coming out in November. I believe it is going to deal with this issue in some detail.

Mr. OBERSTAR. Do you have any confidence that the consultation process among the several agencies will result in an improvement in both the focus of the resource agencies and in that of the Corps on the primary mission? That is: treating wetlands as waters of the United States that must be protected; that the processing procedure can be simplified, streamlined; and that the appeals process will be ameliorated? Have you had any role—as National Wildlife Federation—in the consultations underway?

Ms. GOLDMAN-CARTER. We have frequently been on the sideline observing those kinds of consultations going on and having some part in them.

Frankly, I don't have confidence that that will change the picture dramatically to streamline those elevation processes until you have some direction and until you remove the dichotomy of philosophies that underlie the 404 program right now.

I believe as long as you have a Corps' philosophy of public interest review and accommodating and balancing wetlands loss, and the resource agencies attempting to protect them, you are going to continue to have interagency squabbling. You may be able to fine tune it to some extent, but I do think that is at the core of the problem.

Mr. OBERSTAR. One of the criticisms by GAO—or findings, which becomes in itself criticism—is that there is a great deal of diversity among the Corps district offices in evaluating comparable permit situations. Should the Corps district engineers have more or less latitude in handling 404 permit decisions? Keep in mind that previous witnesses feel that it is important that this permit process be as close to the local situation as possible.

Ms. GOLDMAN-CARTER. In general, I concur with the approach of having the decision be at the district level. I don't think we would be in favor of seeing these decisions routinely elevated above that level.

However, on the other hand, I think that discretion needs to be constrained by an overall policy, which is what our goal here is, not losing wetlands. It is not accommodating permit applicants.

Mr. OBERSTAR. In considering an application or permit to alter, remove, or destroy a wetland—I will rephrase that question because it isn't going to come out right. I will make a statement instead of propound a question.

It is my understanding of the history of this whole process—having sat through 14 years of legislation and 12 years previously as a member of the Public Works Committee staff—that our purpose was, ultimately, underneath all of it, that the presumption should be in favor of preservation of wetlands. In the decisionmaking process, when there is a question about whether or not that particular parcel should be protected, if it fell within the category of wetlands the presumption should fall in favor of the wetlands.

After all, we are the only ones who can advocate for it, for the land itself and the wildlife that depend upon it. A habitat cannot speak. It can only disappear. I sense that that is the thrust of the testimony of the National Wildlife Federation.

Do you feel that that is the viewpoint with which the resource agencies and the Corps approach the permitting process?

Ms. GOLDMAN-CARTER. I think that is the viewpoint from which the Fish and Wildlife Service approaches the process, and the Environmental Protection Agency, and, I assume, the National Marine and Fishery Service. I have not worked as closely with them.

I am quite sure that is not the approach generally that the Corps approaches the process with. In fact, the Corps of Engineers personnel have routinely made it clear in every conference and seminar that I have debated this issue in that they do not believe Congress intended to protect wetlands, intended no such presumption, and unless they are told differently, they won't change the way they do business.

Mr. OBERSTAR. Your central critique of the Corps is that it is not a wetlands protecting agency, but a permit processing agency, whose purpose is to move those permits as quickly as possible with the least amount of bureaucratic snares. Is that right?

Ms. GOLDMAN-CARTER. That is correct, Mr. Chairman.

Mr. OBERSTAR. There certainly would be other questions that we would like to ask if were there time. Regrettably, the intervention of votes is constricting our timeframe this afternoon.

I yield to the gentleman from Pennsylvania.

Mr. CLINGER. Thank you very much, Mr. Chairman.

I apologize for not having been here for most of your presentation. But I promise you that I will read the statement.

Ms. GOLDMAN-CARTER. That is quite a promise. You haven't looked at it yet.

Mr. CLINGER. I will peruse it, I guess would be more accurate.

One of the ongoing activities which our subcommittee has attempted to follow in conjunction with this hearing is the National Wetlands Policy Forum led by Governor Keane of New Jersey. Have you or your organization been involved in that activity? If so, can you give us an idea of the status of the work?

Ms. GOLDMAN-CARTER. Yes. We have been actively involved. Our president, Jay Haire, has been a member of the Forum. My immediate superior has been his staff person. I have been my superior's staff person. So we have had kind of a direct channel into the Forum.

It is my understanding that the report will be out sometime in early November. It is also my understanding that it is going to be quite thorough, quite detailed, and, I think, quite thoughtful.

Mr. CLINGER. They are not issuing a preliminary report. Will they issue their final report in November?

Ms. GOLDMAN-CARTER. That is my understanding.

Mr. CLINGER. You had a sort of a litany of things which you felt still had not been addressed by the Agency. That would seem to be somewhat contrary to the tenor of the GAO report. The report suggested that while there were still significant problems with enforcement, surveillance, etc., their conclusion seemed to be that there was at least marginal improvement in other areas. I take it you disagree with that conclusion.

Ms. **Goldman-Carter.** Yes, I do disagree with that.

I thought the GAO report was very well-written and accurate in every thing that I read there. I don't know that it is so much a contradiction as it is just a difference in emphasis. I did not see the GAO report as focusing on some of these other issues—what we refer to as jurisdictional issues. Most of those that I addressed that weren't covered in the GAO report were issues that relate to the Corps' efforts to restrict their jurisdiction either geographically or over certain dredge and fill activities. It is my understanding that that was not the area of focus of the GAO report. It happens to be an area of focus for us, and one we are very concerned about.

Mr. **Clinger.** One of the things that was commented upon in the GAO report was what they felt was a fairly prevalent practice. Wherein a developer would go ahead with a fill on the assumption that one, he would never get caught, or, two, if caught, that the Corps would grant a permit rather readily without much more to do about it. That is kind of a serious charge. Do you think that that is an accurate assessment of what has gone on?

Ms. **Goldman-Carter.** Yes, I do, Congressman Clinger. The Russo Project in the Meadowlands—which is one we outline in some detail in our testimony—in New Jersey is an example of that. Example after example is listed in the GAO report. That is the consistent process.

In fact, I point to places in the Corps' regulations, and their regulatory guidance letters that they send out to the field, where the general message is: rather than try to take action to deter future illegal action, take action to bring the permit applicant or the discharger into compliance.

When you combine that philosophy with the lack of surveillance and enforcement, you have a situation, I think just logically, where the permit applicant can take a calculated risk that first, he is not likely to get caught. Second, even if he does, the worst that will happen is that he is required to bring the wetland to the status quo, if that. More likely that he receives an after-the-fact permit.

Mr. **Clinger.** The major problem here seems to be one of surveillance and enforcement. I suppose the Corps' response would be, well, it is better that we at least try and get them in compliance after the fact, if we have discovered it. Since we don't have the manpower or the resources to do a thorough job of surveillance and enforcement, we might as well try and correct it after the horse is out of the barn.

Ms. **Goldman-Carter.** The problem that I see with that is the problem that I think the GAO report was referring to. When you have limited resources and you are an enforcement agency, the usual tactic is basic criminal law and policy, to try and take deterrent action. Find specific, identifiable cases which you can then make the most hay out of in terms of enforcement and deterrence.

We just don't see that happening in the Corps. That would be a logical way, without using additional resources and causing additional delays, to better focus enforcement action. I think that is what the GAO report was driving at as well.

Mr. **Clinger**. One of the areas in dispute here is the question of whether or not we should have a national definition, a more clear definition, of what we mean when we talk about wetlands. We have had different opinions expressed during the hearing today of those who have said we do need, in fact, a national standard.

Congresswoman Johnson raised the point that yes, you have unique situations on the land that do not lend themselves to that kind of Federal, overriding definition. What is the opinion of the National Wildlife Federation?

Ms. **Goldman-Carter**. Well, it is our view that there is.

Unfortunately, the Federal definition of wetlands that has evolved since 1972 is not in the original legislation or in any of the amendments. But through the regulatory process, the Corps of Engineers actually developed a three-parameter wetlands definition that has become accepted and widely used by EPA and the Corps.

Now, with the Food Security Act of 1985 and the implementation of Swampbuster, essentially the same definition is being used by the Soil Conservation Service. That same definition is also now in the emergency wetlands legislation.

We feel that although, unfortunately, it wasn't in the initial legislation, we do have a good definition that we are beginning to get uniform implementation of. That definition would probably be the one we would like to see Congress stick with.

Mr. **Clinger**. Okay.

Thank you very much.

Ms. **Goldman-Carter**. Thank you.

Mr. **Oberstar**. We thank you very much for your presentation and for the thorough documentation that you have developed.

Ms. **Goldman-Carter**. Thank you.

[The prepared statement of Ms. Goldman-Carter follows:]

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Statement of the National Wildlife Federation

Before the Subcommittee on Investigations and Oversight of the House Committee on Public Works and Transportation

on Wetlands: The Corps of Engineers' Administration of the Section 404 Program

by

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Counsel
Fisheries and Wildlife Division

September 14, 1988

CONTENTS

Conserving Our Nation's Wetlands....................1

The Corps Refuses to Acknowledge Its Wetland Protection Mission..........................7

The Corps' Mission is Not Permit Processing.........11

The Corps Continues to Avoid Regulation through Use of the Commerce Clause Test.....................13

The Corps Continues to Refuse to Regulate Fill Material Deposited Primarily for the Purpose of Waste Disposal...........................19

The Corps Uses General Permits to Avoid Regulation of Additional Wetlands Destruction.......25

The Corps Refuses to Accept a Mitigation Policy which Maintains the Nation's Wetlands and Waters....................................31

Both the Corps and EPA have Failed to Enforce §404..33

Congress Must Broaden the Activities Regulated Under §404 to Control Drainage, Clearing, Dredging, and Other Forms of Wetland Destruction...............................39

Recommendations and Conclusions....................40

Exhibits A-O Attached

CONSERVING OUR NATION'S WETLANDS

Mr. Chairman and Members of the Subcommittee, the National Wildlife Federation appreciates the opportunity to provide the following statement on Clean Water Act §404 implementation and to offer our suggestions for statutory and administrative improvements to the program.

The National Wildlife Federation (NWF) and our 51 affiliate organizations have, since their inception, maintained a strong commitment to the protection of our Nation's wetlands. We have contributed our expertise and our views regarding wetlands protection in Congress, in the Courts, and in the agencies at virtually every opportunity. We consider ourselves partners in a national effort to preserve one of our most vital natural resources.

Despite all of our efforts, we continue to lose wetlands at an alarming rate. The U.S. Fish and Wildlife Service (FWS) estimates that 56 percent of the original wetlands in the coterminous 48 states have been lost and that 11 million wetland acres (550,000 acres per year) were destroyed from the mid-1950s to the mid-1970s. U.S. Fish and Wildlife Service, Wetlands of the United States: Current Status and Recent Trends (1984). Current wetland losses are estimated to range from 300,000 to 500,000 acres per year. Id; See, also, Office of Technology Assessment, Wetlands: Their Use and Regulation 3 (1984).

In the meantime, the sixteen-year old battle to get the Corps of Engineers to control the discharge of dredged and fill material into wetlands and to protect these areas continues like a long-playing soap opera. The fact of the matter is the §404 permit program is the step-child of the Corps of Engineers, a fact that will not change, at least not without a clear directive from Congress. A brief history of the program will make this abundantly clear.

When Congress passed the Federal Water Pollution Control Act (FWPCA) in 1972, it fully intended to preserve and enhance the "chemical, physical, and biological integrity of the Nation's waters" by controlling the discharge of pollutants into these waters. 33 USC 1251 and 33 USC 1311. Congress intended the Act to cover discharges into "all waters of the United States":

> ...[I]n 1972, the Congress broadened the traditional definition of navigable waters in recognition of the fact that pollutants migrated into the Nation's waters through water courses, swamps, creeks, and underground sources, many of which were simply not 'navigable' in the traditional sense but the pollutant impact was sufficient to merit regulation.

Cong. Rec. S9760-62 (daily ed. June 5, 1975)
(Statement of Edmund Muskie).

Congress gave the §404 dredge and fill permit program to the Corps, and the Corps immediately set about trying to narrow its new water pollution control responsibilities to fit its traditional role as protectors of navigation. See, Natural Resources Defense Council v. Callaway, 392 F.Supp. 685 (D. D.C. 1975) (NWF was a co-plaintiff in this lawsuit which forced the Corps to accept §404 jurisdiction over all "waters of the United States" to "the maximum extent permissible under the commerce clause.").

When the Court invalidated the Corps' effort to shun its responsibilities to protect wetlands under the 404 program, the Agency adopted a "phase-in" system which postponed regulation of wetlands not adjacent to traditionally navigable waters or their tributaries until July, 1977. 40 Fed. Reg. 31,320, 31,325-26 (1975); See, Jackson, "Wetlands and the Commerce Clause: The Constitutionality of Current Wetland Regulation under Section 404 of the Clean Water Act," 7 Va. Jour. Nat. Res. Law 307, 334 (1988). Then, in July, 1977, rather than phasing in these "nonadjacent" wetlands, the Corps exempted them from permit review under a general permit. 42 Fed. Reg. 37,144, 37,146 (1977); See, Jackson, supra, at 334.

The Corps' July, 1977 regulations also imposed a restrictive definition of "fill" material that excludes from the §404 program any fill material deposited for the "primary purpose" of disposing of waste. 42 Fed. Reg. 37,144 (1977). That restrictive definition has no basis in the law, yet it exists to this day. The Corps' refusal to regulate such fill continues to result in substantial wetland losses in violation of §404. See, discussion, infra, at 19.

In December, 1977 the FWPCA was amended, and Congress reaffirmed in no uncertain terms, that it intended §404 to protect wetlands:

> ...There is no question that the systematic destruction of the Nation's wetlands is causing serious, permanent ecological damage. The wetlands and bays, estuaries and deltas are the Nation's most biologically active areas. They represent a principal source of food supply. They are the spawning grounds for much of the fish and shellfish which populate the oceans, and they are passages for numerous upland game fish. They also provide nesting areas for a myriad of species of birds and wildlife.
>
> The unregulated destruction of these areas is a matter which needs to be corrected and which implementation of section 404 has attempted to achieve.

S. Rep. No. 95-370, 95th Cong., 1st Sess.10 (1977) reprinted in 4 A Legislative History of the Clean Water Act, at 644 (1978) (emphasis added).

In 1982, NWF and other conservation groups sued the Corps to invalidate several aspects of the agency's 1977 regulations, including the general permit for "nonadjacent wetlands" and the restrictive definition of "fill". Nat'l Wildlife Fed'n v. Marsh, 568 F. Supp.985 (D.D.C. 1983). In the 1984 settlement agreement among the parties to the suit, the Corps agreed to narrow the general permit excluding nonadjacent wetlands to those activities impacting no more than ten acres of waters of the United States. 33 CFR 330.5(a)(26)(1987). Then, not to be deterred, the Corps engineered a new policy for excluding wetlands from §404 jurisdiction: the "commerce clause test" for "isolated" (nonadjacent) wetlands. Jackson, supra, at 335.

"Regulatory Reform," brought by the Reagan Administration, stimulated additional efforts by the Corps to limit its own jurisdiction over discharges into wetlands and other waters of the United States, and to "streamline" and accelerate the §404 permit process. See, "Administrative Reforms to the Regulatory Program under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act" ("Regulatory Reforms Document") reprinted in "Oversight Hearings On Section 404 of the Clean Water Act: Hearings Before the Subcommittee on Environmental Pollution of the Senate Committee on Environment and Public Works (S.Hrg. 99-278) 99th Cong., 1st Sess. 220-230 (1985) ("1985 Senate Oversight Hearings").

These reform initiatives led to oversight hearings before the House of Representatives in 1982 and 1986 (Subcommittee on Water Resources of the Committee on Public Works and Transportation, July 28, 1982; Committee on Merchant Marine and Fisheries, August 10, 1982; Subcommittee on Environment, Energy and Natural Resources of the House Committee on Government Operations, March 25, 1986) and before the Senate in 1985 (Subcommittee on Environmental Pollution of the Committee on Environment and Public Works, May 21, June 10, July 15, and September 18, 1985).

The National Wildlife Federation presented detailed testimony to the Congress at each of these hearings and documented repeatedly the Corps' efforts to restrict its jurisdiction over wetlands, to avoid permit review through general permits, to grant permits in violation of the 404 (b)(1) Guidelines, and to ignore unauthorized dredged and fill activity.

Consequently, the existing record plainly demonstrates:

1. The Corps' refusal to accept its wetlands protection mission and its insistence upon speedy permit processing.

2. The Corps' use of the commerce clause to limit its jurisdiction over "isolated" wetlands.

3. The Corps' restrictive definition of "fill" material to limit its jurisdiction over dredge and fill activities in wetlands.

4. The Corps' restrictive delineation of wetlands boundaries to limit its wetlands jurisdiction.

5. The Corps' broad interpretation of §404 exemptions to limit its jurisdiction over wetlands.

6. The Corps' broad interpretation of its general permitting authority to allow extensive wetland dredging and filling to go unregulated.

7. The Corps' failure to deny permits where practicable alternatives are available.

8. The Corps' failure to require mitigation measures for unavoidable wetland losses which ensure compensation for lost resources.

9. The Corps' and EPA's failure to enforce §404 for both unpermitted discharges and violations of permit conditions.

10. The lack of staff and other resources in the Corps and EPA to properly administer the §404 program.

These problems, many of which were identified more than 5 years ago persist today. The General Accounting Office (GAO) Report, which is the primary focus of this subcommittee hearing and our testimony, documents some of these problems in more detail. While the results of the GAO report are troublesome, perhaps most disturbing is that none of the information contained in the report is new. It simply represents the latest chapter in the 404 saga. Most importantly, the GAO study confirms our statements given during the House and Senate oversight hearings three years ago:

Our Nation's wetlands will not be protected, and will continue to be lost, unless and until Congress:

1. Shifts responsibility for the §404 permit program from the Army to a federal agency with greater interest in wetlands protection; and

2. Provides sufficient resources to that agency to properly enforce the law; and

3. Broadens the activities regulated under §404 to control channelization, excavation, drainage, clearing flooding, and dredging of wetlands and other waters of the United States.

THE CORPS REFUSES TO ACKNOWLEDGE ITS WETLAND PROTECTION MISSION.

Though Congress and the courts have consistently and repeatedly confirmed that §404 is a statute intended to control wetlands destruction, the Corps has steadfastly refused to accept this responsibility. For example, during the 1985 Senate oversight hearings referenced above, Acting Assistant Secretary of the Army (Civil Works) Robert Dawson testified that, "...Congress did not design Section 404 to be a wetland protection mechanism and it does not function well in that capacity." Senate Oversight Hearings, at 61. He also testified, "The Congress has never addressed the issue of wetlands jurisdiction....We believe the issue of wetlands jurisdiction of the CWA [Clean Water Act] demands appropriate legislative direction." Id., at 60-61.

Assistant Secretary Dawson took this position despite the contrary position taken by this Administration's Justice Department in its brief before the Supreme Court in the landmark wetlands case, U.S. v. Riverside Bayview Homes, Inc. The Justice Department brief states that the "...conclusion that it is 'not clear' that Congress wanted the Corps to exercise the broadest possible jurisdiction over the Nation's wetlands is simply untenable when examined in light of the legislative history." Brief at 27, reprinted in 1985 Senate Oversight Hearings, at 245.

The leadership of the Senate Subcommittee on Environmental Pollution took strong exception to the Assistant Secretary's position, citing the legislative history of the 1977 amendments as proof that Congress does in fact intend the §404 program to be a tool for wetlands protection. 1985 Senate Oversight Hearings, at 96. During the 1985 hearing, Senator Stafford was especially disturbed by the Corps' cavalier attitude towards wetlands protection and admonished Mr. Dawson and the agency:

> ... [A]s one member of the Congress who has had more than a passing interest in the Clean Water Act of 1972 and 1977, I can assure Mr. Dawson that it was the intent of the Congress that wetlands are important and are to be protected under Section 404 of the Clean Water Act. For an agency as important to this task as the civilian arm of the Army Corps of Engineers to hold otherwise is to frustrate the very goals of the Act.

Id., at 102 (emphasis added).

Despite such clear direction from Congress and from the Supreme Court in the 1985 Riverside Bayview Homes decision that §404 is a wetlands protection statute, the Corps patently continues to deny its authority and responsibility under §404 to protect wetlands. Id., at 234. This position was made abundantly clear at a §404 conference recently held here in Washington, D.C. when Bernard Goode, the Chief of the Regulatory Branch in the Office of the Chief of Engineers, reiterated the gospel of the Corps --that §404 is not a wetlands protection statute-- and stated unequivocally that the Corps is not going to change the way it does business without a statutory change.

The Corps' refusal to accept its wetlands protection responsibility is clearly manifested in the agency's reliance on its "public interest review," rather than the statutorily-mandated §404(b)(1) Guidelines, as the basis for permit issuance. The public interest review is defined in the Corps' permit regulations as:

> ...the consideration of the full public interest by balancing the favorable impacts against the detrimental impacts....The program is one which reflects the national concerns for both the protection and utilization of important resources.
>
> 33 CFR §320.1(a).

Obviously, this broad balancing test gives Corps officials unbridled discretion to permit or prohibit wetlands destruction based upon subjective judgment. In addition, the public interest review gives considerable weight and undue deference to the economic effects of restricting dredged and fill activities. For example, the regulations specifically provide:

> When private enterprise makes application for a permit, it will generally be assumed that appropriate economic evaluations have been completed, the proposal is economically viable, and is needed in the marketplace.

33 CFR §320.4(q) (emphasis added).

In practice, we have found frequently that this assumption is unfounded. Moreover, the assumption that the activity is "needed" strongly suggests that permit issuance is required.

In effect, the Corps has made the §404 (b)(1) Guidelines but one factor in a "public interest" calculus which only the Corps can compute. The public interest review cannot be found anywhere in the Clean Water Act. Indeed, such arbitrary balancing of interests has no place in the Clean Water Act, which pledges to "...restore and maintain the chemical, physical and biological integrity of the Nation's waters."

The disposal of dredged and fill material into wetlands and other waters of the United States must be based on the guidance in §404 itself and the §404(b)(1) Guidelines it requires. The statute and the Guidelines already incorporate the public interest determinations made by Congress in the Clean Water Act. In superimposing its public interest review to support permit issuance, the Corps defies the goals of the Clean Water Act.

RECOMMENDATION:

Congress should, at a minimum, direct the Corps to base its permit decisions exclusively on the §404(b)(1) Guidelines. Congress should also go one step further and transfer the §404 program to an agency prepared to protect wetlands.

THE CORPS' MISSION IS NOT PERMIT PROCESSING.

Instead of protecting wetlands, the Corps apparently considers its primary mission to be the speedy processing of permits. The focus on speedy permit issuance was sharpened by the Regulatory Reform process, which resulted in the following §404 program "reform" measures:

> The Army will adopt as soon as practicable administrative measures to reduce the average time for a decision on a permit application. Strict time limits on the Corps' in-house procedures will be set so that, apart from requirements or procedures mandated by law, a decision on a completed application will ordinarily be forthcoming within 60 days of its receipt. An internal monitoring system will be established to ensure that these time limits are strictly observed.
>
> Regulatory Reforms Document _reprinted in_ 1985 Senate Oversight Hearings, at 224.

Thus, the Corps charges ahead to authorize wetlands destruction. Once the permit applicant is accommodated through timely permit issuance, and the dredging and filling activity is authorized, the Corps seems to feel its mission has been accomplished.

During the July, 1982 Senate oversight hearing, Senator Chafee made every effort to set the Corps straight on this point:

> You come in with a crusader spirit, Mr. Dawson, and Mr. Gianelli, your boss, in making it easier, quicker to get these permits. That is not the purpose of the program. The purpose of the program is to save the wetlands in the country. It is not to get permits as fast as you can get them....
>
> Hearings Before the Subcommittee on Environmental Pollution of the Committee on Environment and Public Works, July 16, 1982.

Apparently, the Corps was not listening. The GAO Report confirms that the Corps focuses almost entirely on individual permit processing, ignoring wetland destruction attributable to activities covered by general permit, unpermitted activities, and violations of permit conditions. See, e.g., GAO Report at 33, 55-60. Indeed, in commenting on the Draft GAO Report, the Corps itself described its mission as "evaluating applications and enforcing against permit violations." GAO Report, Appendix II at 90.

While there is much that can and should be done to reduce unnecessary delays in the §404 permit process, the objective of the §404 program must be to protect wetlands, not to license their destruction expeditiously. Permit processing does not protect wetlands; it simply sanctions their destruction. If our Nation's wetlands are to be conserved, the focus of federal wetlands regulation must shift from paper pushing to conservation.

RECOMMENDATION:

At a minimum, the Corps should modify its emphasis on permit processing and rescind strict time limits on permit review, both to ensure that applications are receiving adequate environmental review and to allow for an increased emphasis on enforcement.

THE CORPS CONTINUES TO AVOID REGULATION THROUGH USE OF THE COMMERCE CLAUSE TEST.

The Corps' requirement that each wetland must have a demonstrated nexus with interstate commerce before it can assert §404 jurisdiction is a perfect example of what is wrong with the Corps' administration of the §404 program. Congress clearly intended the Corps' §404 jurisdiction to be given the "broadest possible constitutional interpretation...." and to be coextensive with Congress' constitutional authority to regulate interstate commerce. See, 1 Legislative History of the Federal Water Pollution Control Act Amendments of 1972 at 327 (1978); Utah v. Marsh, 740 F.2d. 799, 802-803 (10th Cir. 1984); Jackson, Supra, at 311, 313.

Under Supreme Court cases dating back to the 1840s, the commerce clause power is virtually limitless, yet the Corps is using the commerce clause test as an excuse not to regulate the destruction of nonadjacent, or "isolated," wetlands. See, e.g., Wickard v. Filburn, 317 U.S. 111 (1942)(Congress can regulate a farmer's wheat production even though it never enters any market because the farmer's contribution to the demand for wheat, when combined with others similarly situated, is far from trivial.); See, Jackson, supra, at 314.

During the oversight hearings in 1985 and 1986, NWF objected to this practice, documenting cases, including "Pond 12" in Texas, where wetlands were destroyed while the Corps tried to decide whether these wetlands met the commerce clause litmus test.

As a result of the oversight hearings and the "Pond 12" litigation brought by NWF, the Corps conceded that waters and wetlands which "are or could be used" by migratory birds satisfy the constitutional interstate commerce clause test and come within the §404 permit program. This standard for jurisdiction has become known as the "reasonable bird rule." See, e.g., 1985 Senate Oversight Hearings, at 208-209; Nat'l Wildlife Fed'n v. Laubscher, 662 F. Supp. 548 (S.D. Tex. 1987); Jackson, supra, at 335-336. The Corps incorporated this guidance into the preamble to its permit regulations in 1986. 51 Fed. Reg. 41,206, 41,217 (1986).

Despite the Corps' concession, the commerce clause test continues to be an unnecessary and illegal effort on the part of the Corps to limit the broad wetland protection authority granted it by Congress. The reality is that all wetlands which meet the Corps definition of wetland will also meet the "reasonable bird rule" since it is virtually impossible to imagine a wetland that could not be used by one of the more than 800 species of migratory birds protected under the Migratory Bird Treaty Act. 16 USC 703-712 (1982); 50 CFR 10.13 (1986); See, Jackson, supra, at 336-337, n.178-179.

Consequently, the Corps continues using a meaningless and subjective litmus test for §404 jurisdiction, applying it differently in each of the Corps districts and simply adding confusion, uncertainty, and delays to the permit program. In addition, trying to develop field methodologies for the reasonable bird rule is draining vital and scarce resources of the Corps, the EPA, and the FWS.

Recent events involving the regulation of wetland fills in isolated forested wetlands in the Chesapeake Bay region demonstrate the problem. In January 1988, the Chief of the Regulatory Branch of the Office of the Chief of Engineers issued a memorandum stating that §404 jurisdiction is to be limited by Executive Order 12612 entitled "Federalism." The Chief interpreted the Executive Order as providing "...support for our current position that if you have no clear legal authority to regulate, you should not." Memorandum from Chief, Regulatory Branch, dated January 20, 1988. Exhibit A. This guidance was issued despite the fact that the Congress and the Courts seem convinced that the Corps does, in fact, have clear legal authority to regulate any area meeting the Corps' own definition of a wetland.

A subsequent memo from the Chief, Regulatory Branch of the Corp's Baltimore District Office elaborated on this "when in doubt, don't regulate" guidance, dictating that "[t]he

Commerce Nexus is only clearly established when you can establish irrefutable evidence, such as actually seeing ducks or geese in the area of concern." Exhibit A. The requirement of irrefutable evidence for each wetland and the limitation to "seeing" migratory birds, and to waterfowl specifically, clearly deviate from the "reasonable bird rule" agreed to by the Corps in 1985 and 1986, as well as established principles of wildlife science and constitutional law.

An April 21, 1988 memorandum from the Baltimore District Engineer to the Commander of the Corps clearly demonstrates the confusion over the commerce clause test is still resulting in the loss of critical wetlands. Acknowledging that although the forested wetlands of the coastal plain do in fact meet the Corps' wetland definition,

> ...it is not clear to me that these areas can be interpreted as "waters of the United States" within the purview of Section 404. Historically, this District has not regulated these areas pursuant to Section 404.

Noting the uncertainty in the Corps' guidance on "isolated wetlands" and the express "when in doubt, do not regulate" guidance based on the Federalism Executive Order, the District Engineer stated as follows:

> I feel compelled to speak out as development is increasing at an alarming pace throughout the state of Maryland. We are now faced with numerous permit applications for developments in wet wooded areas that do not have a clear connection to interstate commerce. This is becoming a focal issue within a ten mile radius of Ocean City, Maryland where expansion of new development catering to tourism is evident. My concern is that I do not have the resources to cover all the

> bases, and I have elected not to regulate seasonal wet wooded areas without both clearer guidance and resources. Exhibit B (emphasis added).

On March 30, 1988, EPA Region III objected to a jurisdictional determination by the Corps District involving the commerce clause test, and requested a meeting to resolve the issue. Exhibit C. The Corps, EPA, FWS, and the National Marine Fisheries Service (NMFS) held subsequent meetings to discuss the issue on May 6 and July 15, 1988. Many wetland fills and hundreds of staff hours later, the Corps has apparently agreed to rescind its "seeing ducks and geese" guidance memo and accept a detailed list of migratory bird habitat descriptions as a basis for determining the commerce clause nexus in Maryland.

In the meantime, Corps Headquarters has responded to the District Engineer's inquiry on regulating isolated forested wetlands with a position based not on the commerce clause test at all, but on the wetlands definition itself:

> We understand from your staff...that there is some uncertainty that the subject areas fit at least two of the technical parameters for wetlands, namely vegetation and hydrology...
>
> Our position is that, where there is reasonable doubt that a site fits the definition of wetland at 33 CFR 328.3(b), districts should not regulate it. We do not have adequate resources to regulate those areas that clearly do fit the definition and should not expend resources on questionable areas.
>
> Memorandum from John P. Elmore, Chief, Operations and Readiness Division, to Commander, Baltimore District, dated May 25, 1988. Exhibit D.

This change in rationale simply heightens the uncertainty over the regulation of these wetlands and reconfirms that the Corps is simply not interested in regulating the destruction of wetlands. What is clear from these examples is that the uncertainty, the time, the staff resources, and the wetlands lost in tinkering with the commerce clause test were all for naught. It now appears that the Corps will ultimately decide its jurisdiction over Maryland's "wet woods" based on the wetlands definition and not the commerce clause. This is the approach that the Congress and the Courts have directed be used by the Corps all along.

The Corps' use of the commerce clause test demonstrates that when it comes to regulatory reform the Corps is, in a very real sense, its own worst enemy. As the Corps' Wilmington District Engineer wrote back in 1982:

> The prevailing uncertainty over jurisdictional extent of the law is perhaps one of our own making because of our seeking, through nationwide permits and other means, a justification for limiting the jurisdiction of the Clean Water Act to some boundary less than the full breadth of the wetlands found in the term 'all waters of the United States'.
>
> Letter, Wilmington District Engineer to Hobart Truesdale, President, First Colony Farms, February 26, 1982, quoted in 1985 Senate Oversight Hearings, at 300.

RECOMMENDATION:

Congress should direct the Corps to abandon the commerce clause test and rely upon its wetlands definition to determine whether particular wetlands fall within the scope of §404.

THE CORPS CONTINUES TO REFUSE TO REGULATE FILL MATERIAL DEPOSITED PRIMARILY FOR THE PURPOSE OF WASTE DISPOSAL.

For over ten years now the Corps has asserted through regulation that "we don't do garbage," despite the agency's own recognition that waste material is fill material in terms of its effect on waters of the United States:

> During the two years of experience with the Section 404 program, several industrial and municipal discharges of solid waste materials have been brought to our attention which technically fit within our definition of 'fill material' but which were intended to be regulated under the NPDES program. These include the disposal of waste materials such as sludge, garbage, trash, and debris in water. In some cases involving the disposal of these types of material in water, the final result may be a landfill even though the primary purpose of the discharge is waste disposal.

47 Fed. Reg. 37130 (1977).

Despite this recognition, the Corps has persistently excluded solid waste from its definition of "fill." This refusal is not based on a reasoned interpretation of the statute, but apparently on resource concerns. As the Corps explained in a 1981 letter to EPA:

> If anything, our resistance [to regulating solid waste fills] has increased with the knowledge that our regulatory program will have to take a significant slice of the OMB directed cuts....
>
> You make a persuasive argument for the 404 program being a better regulatory mechanism than 402, but I believe all the shortcomings you list for the 402 program can be administratively remedied under EPA's broad legislative authorities....

Letter from Major General Heiberg III to Deputy Assistant Administrator Sarah Compton, dated June 8, 1981. Exhibit E.

The Corps' refusal to regulate fill material which is deposited for the primary purpose of waste disposal violates §404 and permits the continued destruction of wetlands without a §404 permit. The EPA has differed historically with the Corps on this point, defining "fill" for purposes of the State Permitting Program, as "...any 'pollutant' which replaces portions of the 'waters of the United States' with dry land or which changes the bottom elevation of a water body for any purpose." 53 Fed. Reg. 20764, 20774 (1988), codified at 40 CFR 232.2(i). See, 1985 Senate Oversight Hearings, at 135-136. EPA's continued opposition to the Corps' restrictive definition is also clearly stated in EPA's comments on the Draft GAO Report. GAO Report, Appendix III, at 103.

Both the Court in the 1984 Settlement Agreement in Nat'l Wildlife Fed'n v. Marsh, supra, and the Congress in the 1985 Senate oversight hearings, called upon the Corps and EPA to reach a joint definition of fill to resolve this issue. Instead, the two agencies signed a Memorandum of Agreement (MOA) in 1986 which carved up their enforcement and permitting duties, requiring application of §402 National Pollution Elimination Discharge System (NPDES) permit standards in some instances, and §404 standards in others.

The MOA does not resolve the underlying differences regarding the definition. As a result, there continues to be considerable uncertainty regarding when, and if, §402, §404, or both apply, and as a result wetlands continue to be lost in violation of §404 and the §404 (b)(1) Guidelines. See, GAO report, Appendix III, at 103.

The confusion surrounding the MOA is evident in a letter from EPA to the State of Pennsylvania regarding the appropriateness of a §402 NPDES permit for the disposal of fly ash into wetlands. In the letter dated February 2, 1987, Deputy Assistant Administrator Rebecca Hanmer wrote,

> The goal of the CWA is clear '...to restore and maintain the chemical, physical and biological integrity of the Nation's waters.' I do not believe that the degradation or destruction of waters of the U.S. by the disposal of solid and semi-solid pollutants in wetlands is in keeping with the intent of section 402 and the CWA....
>
> While we do not rule out the possibility that a person seeking to discharge solid waste into wetlands will be able to obtain a section 402 permit, we think it is more likely that the permit will need to be denied or issued with a 'no discharge' limitation because the applicant will not be able to discharge without violating State water quality standards and/or the Act's technology-based requirements. Exhibit F.

Despite this apparent recognition that wetlands destruction through the discharge of fill material is not allowed under §402, EPA is ignoring its own wisdom and is sanctioning the activity in several instances nationwide. For example, in Idaho's Salmon River Basin, the Corps and EPA are each issuing fill permits for a cyanide leachate gold ore processing facility. The two agencies have relied on the MOA to carve up their jurisdiction over the fill activity in such a way that the Corps is processing a §404 permit over certain stream discharges to drain a five to ten acre wetland, while EPA is processing a §402 permit for the discharge of spent ore tailings into the wetland.

Neither agency is evaluating the total impacts associated with this activity, applying the §404(b)(1) Guidelines, or requiring mitigation for the lost wetlands and streams. The Corps has relinquished responsibility for analyzing the wetland impacts or applying the critical 404(b)(1) Guidelines to the wetland fill, asserting that the §402 permit process will address these concerns. Similarly, the EPA permit does not apply the §404(b)(1) Guidelines since it is not a §404 permit, but instead attempts to apply "best professional judgment" as a §402 effluent limitation.

As a result, substantial riparian habitat and about ten acres of rare alpine bog wetland will be destroyed without application of the §404(b)(1) Guidelines, and with virtually no mitigation for the lost wetlands and streams. In this case, it is the EPA that will permit this wetland destruction by ignoring its own §404 regulations.

The vagaries of regulating gold mining operations under the MOA illustrate the problems with this regulatory scheme. According to the MOA, gold placer mining wastes should be regulated under §402. (It is on this basis that EPA and the Corps have justified regulation under §402 in the Idaho case). The Corps has thus been advising gold placer mining applicants to seek a §402 permit for "direct discharges" such as "wastewater discharges" and "discharges of processed gravel and other streambed material." Exhibit G.

But they must get a §404 permit for closely related filling activity, including the "backfilling of stream channels," the "disposal or stockpiling of overburden," and the "stockpiling of material to be processed." One has to wonder how the applicant will distinguish these discharges from, for example, "discharges of other streambed material." See, Corps Walla Walla District letters to gold placer mining permit applicants, dated September 22, July 2, and June 24, 1987. Exhibit H.

However, the EPA has just issued effluent limitations for placer gold mining operations which appear to contradict totally the position taken by the agencies in the MOA and in the Idaho gold mine tailings fill described above. While the MOA suggests that placer gold mining wastes should be regulated under §402, and the agencies relied on this suggestion in the gold mine tailings determination, the preamble to the new regulations expressly provides that discharges of fill material associated with gold placer mines must obtain §404 permits. Compare, MOA between the Corps and EPA, dated January 17, 1986 and 53 Fed. Reg. 18780 (May 24, 1988) to be codified in 40 CFR 440.140 et seq.

The Corps' restrictive definition of fill has led to anomalous results in regulating wood waste, as well. In 1980, the Seattle Corps District issued a cease and desist order under §404 to refrain from the discharge of wood waste fill material into wetlands in the Grays Harbor estuary in Washington. See, Friends of the Earth v. Hintz, 800 F. 2d 822 (9th Cir. 1986). In 1985, the Walla Walla District issued a similar order for removal of wood waste from the Pend Oreille River in Idaho, apparently under their Rivers and Harbor Act §10 authority, but refused to regulate the wood waste they found in adjacent wetlands on the same site visit, asserting that this wood waste must be regulated by EPA under §402. See, Corps Walla Walla District Violation Case Summary, WI Forest Products, Inc., dated June 9, 1986. Exhibit I.

This same shell game is being played by the Corps and EPA in authorizing the illegal discharge of coal and sand spoil material in the Big Sandy River basin in Kentucky. The FWS estimates that 49 coal and sand dredging facilities have been permitted to operate in this basin in the past five years while the Corps pointed to EPA to regulate and EPA failed to do so. Letter from the U.S. Fish and Wildlife Service (FWS) to the Corps District Engineer, dated July 12, 1988. Exhibit J. As FWS stated,

> ...[E]fforts to avoid duplication of effort during permit evaluation are resulting in the equivalent of administrative repeal of federal statutes intended to protect aquatic resources.

There is simply no legal basis for the Corps' refusal to accept jurisdiction over these discharges into waters of the United States. The Corps' historic refusal to accept such jurisdiction, despite clear guiding language of the Clean

Water Act, is but another demonstration that the Corps refuses to regulate wetlands destruction. It is also another reason to transfer the responsibility for wetlands protection from the Corps to another federal agency with a greater interest in wetlands protection.

RECOMMENDATION:

Congress should direct the Corps and the EPA to abandon the MOA and adopt a joint definition of "fill" which requires a §404 permit review for any fill material which replaces portions of waters of the United States with dry land or changes the bottom elevation of a water body for any purpose.

THE CORPS USES GENERAL PERMITS TO AVOID REGULATION OF ADDITIONAL WETLANDS DESTRUCTION.

Another way in which the Corps avoids regulation of wetlands destruction is through the use of general or "nationwide" permits (NWPs). Although §404(e) contemplates the use of such permits, it does so only on the condition that:

> ...the activities in such category [of activity involving discharges of dredged or fill material] are similar in nature, will cause only minimal adverse environmental effects when performed separately, and will have only minimal cumulative adverse effect on the environment. (emphasis added).

Under the guise of regulatory reform and by pleading limited resources, the Corps has used this authority as a way to "sweep under the rug" some 90% of the dredged and fill operations in waters of the United States. See, Administrative Regulatory Reform Document reprinted in 1985 Senate Oversight Hearings, at 220-230.

Many of the NWPs violate §404(e). NWP 26, for example, deregulates every wetland fill above the headwaters of a river or stream and in "isolated" wetlands which adversely affects no more than 10 wetland acres. The activities covered by the permit are in no way "similar in nature," as required by law.

In addition, it is impossible to ensure that the NWPs will cause only minimal adverse environmental effects." In most cases, the Corps does not even require predischarge notification to the District Engineer of dredge or fill activity being conducted pursuant to the NWP. In other words, the discharger simply decides whether or not he or she fits within the NWP permit language published in the Federal Register. In many cases, the Corps has no knowledge or documentation that a wetland fill authorized by general permit has even occurred. See, 33 CFR 330.5, 330.7.

In addition, even when the Corps is aware that a fill has occurred with NWP authorization, the Corps does not enforce compliance with NWP conditions. The GAO found that there was virtually no monitoring or enforcement of general permits in any of the five Corps districts investigated. GAO Report at 63-65.

Even in the rare instance in which a Corps might be motivated to record a violation and enforce compliance with a

NWP, Regulatory Guidance Letter 88-6, issued in late June, 1988, specifically limits such enforcement action to "only those corrective actions needed to bring the discharge into compliance ...." Exhibit K. Consequently, there is no incentive for a discharger to comply with the NWP permit conditions, since the Corps is unlikely to inspect his wetland fill. Even if inspected, the worst that can possibly happen is that the Corps will require compliance with the NWP permit conditions.

There is also no way to assess the cumulative impacts of wetland fills permitted in this fashion. Section 404(e) expressly limits the use of general permits to those cases in which they will not contribute to "cumulative adverse effect on the environment." Yet, Regulatory Guidance Letter (RGL) 88-6 confirms that the Corps has virtually no way to assess the cumulative effects of general permit activity. The Corps relies primarily on a brief environmental assessment prepared for each NWP, which speculates as to the potential effects of the use of that NWP nationwide.

The Corps' lack of resolve and direction in assessing the cumulative effects of the NWP program are illustrated in the following RGL language:

> ...[W]e have asked districts to, from time to time, conduct monitoring studies of the impacts of NWPs in their areas. The districts should periodically review a sample of actions occurring under NWP, perhaps through a comparison of their files to state, regional, or municipal files (i.e., wetland regulatory program, planning and zoning, municipal building permits, etc.) or through aerial photo interpretation.

In other words, the Corps really does not know how to assess the cumulative impacts of fills which it authorizes without any documentation. The nationwide permit program is a virtual "black hole" of authorized wetland losses which are not even being measured, much less compensated for.

Finally, the Corps is using the nationwide permits program to authorize destruction of large areas of wetlands. Earlier this year, the Louisville, Kentucky District used NWP 21 to authorize surface coal mining that will destroy totally 478 acres of bottomland hardwood wetlands adjacent to the Pond River in Hopkins County, Kentucky.

Despite objections from the EPA and FWS, including specific challenges to the efficacy of restoring the mined area to bottomland hardwood wetlands, the Division Engineer found that "the individual and cumulative adverse impacts on the environment for this project should be minimal," and that the 478 wetland acre loss should be authorized under NWP 21. Exhibit L. It is hard to imagine that anyone could declare publically that destroying almost 500 acres of bottomland hardwoods would have only minimal environmental impacts.

Moreover, the Corps made this determination without even knowing what the impacts of the fill would be, since it was made prior to development of permit conditions for the required state Title V surface mining permit. Further, the Corps used NWP 21 to authorize, after-the-fact, ongoing violations of §404 which had already occurred on the site.

Similarly, NWP 26 is being used, at least in the Charleston, South Carolina District, to permit the inundation of large acreages of bottomland hardwood wetland behind dams which involve less than one acre fills. District personnel are apparently ignoring the substantial adverse modification of wetlands resulting from the small fills based on the following Corps guidance provided in RGL 88-6, para. 3(d):

> Backflooding may or may not be a 'substantial adverse modification' depending on the extent to which it impacts the overall wetland. While it may be an adverse impact to certain types of wildlife currently inhabiting the impact area, it could increase diversity of habitat and improve the value of wetland overall for wildlife....

Consequently, Corps personnel are allowing the destruction of hundreds of acres of bottomland hardwoods-- among the most threatened and most diverse of all wetland types-- on the faulty premise that the open water which will replace the bottomlands will increase their biological diversity. Because the fills themselves directly affect less than one acre, the resource agencies are not even notified of many of them under the predischarge notice requirements of NWP 26, and are therefore unable to seek individual permit review.

Another familiar Corps tactic is to use NWPs to segment projects, restricting the individual permit review to the smallest acreage and activity possible. As a result, the public is misled as to the actual environmental impacts associated with a dredge and fill proposal. The Corps' NWP RGL 88-6 expressly encourages this deceptive and destructive policy:

> It is entirely appropriate to combine two or more nationwide permits to authorize an activity....Likewise, a project that involves a fill resulting in up to one acre of impacts above the headwaters as well as a minor road crossing fill, is authorized under a combination of NWPs 26 and 14 without the requirement of a pre-discharge notification (PDN). In other words, the acreage limitations of NWP 26 do not include the acreage that may be impacted by other nationwide permit authorizations which may be part of the same project. (emphasis added).

The RGL also instructs Corps personnel to permit some elements of a project under a NWP and other elements under an individual permit. By fragmenting the environmental review of these projects in this way, the public is misled with respect to the real environmental costs of the activity, and mitigation for wetland losses associated with the project is never based on total wetland losses and so results in a net loss of wetlands.

The FWS has criticized sharply the Corps' use of NWP 14 (minor road crossing fills) to piecemeal projects in its Wilmington, North Carolina District. For example, in a January 4, 1988 letter to the District Engineer, the FWS Field Supervisor cited a specific instance in which the Corps authorized a highway bypass through the use of NWP 14 for eight different wetland crossings, while other portions of the project were authorized by individual permit. Exhibit M.

The Kansas Department of Wildlife and Parks has also criticized the Corps' piecemealing of §404 projects. In a May 12, 1988 letter to the Corps, the Department objected to the issuance of two individual permits and one general permit to cover different aspects of the same highway project. The Department estimated that, "[t]o date Kansas has probably lost 6 to 8% of its riparian resources due to activities covered in general permits." Exhibit N.

Where have all the wetlands gone? Clearly, thousands of wetland acres have been filled under the auspices of the Corps' nationwide permit program without the Corps knowing-- and perhaps most disturbing-- even caring about it.

RECOMMENDATION:

The Corps should revoke NWP 26 and revise the NWP program to require detailed predischarge information from all applicants and to fully comply with NWP conditions.

THE CORPS REFUSES TO ACCEPT A MITIGATION POLICY WHICH MAINTAINS THE NATION'S WETLANDS AND WATERS.

The Clean Water Act goal to restore and maintain the Nation's waters mandates a mitigation policy which requires: (1) the avoidance of discharges into these waters where practicable alternatives exist;

(2) the minimization of adverse impacts to these waters; and as a last resort,

(3) the compensation for adverse impacts to these waters where such impacts cannot be avoided or minimized.

This sequential mitigation policy is embodied in the Clean Water Act, the §404(b)(1) Guidelines, and the Council on Environmental Quality's National Environmental Policy Act Regulations. See, 40 CFR 1508.20. The goal of mitigation under the Clean Water Act must be no-net-loss of wetlands and other waters of the United States.

Unfortunately, the Corps refuses to adopt this mitigation policy and, continues to view mitigation as merely a consideration in meeting the purpose and need of the discharger and the "public interest." See, 33 CFR 320.4(r)(1987). When the Corps does undertake to impose mitigation requirements on permit applicants, it frequently settles for speculative and experimental wetlands reclamation and creation plans that are supposed to somehow replace the loss of natural wetland functions destroyed by dredged or fill material, rather than denying the permit due to the existence of a practicable upland alternative. See, e.g., Bersani v.EPA, 674 F. Supp. 405 (N.D.N.Y. 1987)(Attleboro Shopping Mall); NWP 21 surface coal mining and gold mine tailings examples discussed above.

In other cases, such as the Russo case discussed in more detail below, the Corps requires only partial compensation for lost wetlands. Without the sequential, no-net-loss mitigation policy discussed above, it is only a matter of time before the Corps simply permits our Nation's wetlands out of existence.

RECOMMENDATION:

The Corps should adopt a sequential no-net-loss mitigation policy that requires avoidance, minimization and, as a last resort, compensation for unavoidable losses on an acre-for-acre, value-for-value no-net-loss basis.

BOTH THE CORPS AND THE EPA HAVE FAILED TO ENFORCE §404.

Even after the Corps has narrowed its own regulatory jurisdiction and swept hundreds of thousands of dredge and fill activities under the nationwide permit rug in order to reduce the individual permit load, the agency still ignores other wetland fills through lack of enforcement. When the 404 enforcement issue was raised during the 1985 oversight hearings, the Corps conceded improvements were needed in the program and indicated it intended to implement changes. 1985 Senate Oversight Hearings, at 142-143. Three years and thousands of wetland acres later, nothing has changed.

Example after example can be cited, to support this criticism, but the modus operandi is the same. As the GAO Report confirms, the Corps simply does not conduct field inspections and surveillance to identify and prosecute unauthorized fill activities. GAO Report at 55-58. The

Corps' monitoring and enforcement of permit conditions also ranges from inadequate to nonexistent. GAO Report at 62-65. The primary reason offered for these omissions is the high priority given to permit processing. Id.

Among the more disturbing of GAO's findings were the interviews with at least two Corps districts which indicated that active surveillance was not conducted because it would uncover too much additional work for the regulatory program. See, GAO Report at 56-58.

In the event that the Corps finds an illegal discharge, it may issue a cease and desist order. Violation of such orders by a discharger, however, is only likely to spawn further inaction by the Corps or simply another cease and desist letter. See, GAO Report at 65-72. Although it has the authority, the Corps rarely enforces the law by taking the violator to court. Most commonly, once the illegal fill is in place, the Corps will usually give its blessing through an "after-the-fact permit". Id. This process of sanctioning wetlands destruction by placing figurative headstones on the burial grounds of our Nation's wetlands must be curtailed.

Filling 52.5 acres of wetlands for warehouses at the Russo Site in the New Jersey Hackensack Meadowlands is but one example of such lax enforcement and its reduction of the wetland base. According to FWS documents, the Service notified the Corps of filling activity in the Meadowlands in 1981. Exhibit O. The Corps apparently advised the discharger to cease filling, but did not follow up with additional enforcement action. Illegal filling of the wetland continued, and the FWS *again* notified the Corps of this activity in 1984. Again, the Corps took no action. Not until four years after the Corps was first advised of the situation did its staff finally visit the site. Even then, the Corps refused to take action due to jurisdictional questions. Filling and warehouse construction activities continued on 44 wetland acres until the Corps *finally* issued a cease and desist order later in 1985. Undeterred, the discharger apparently purchased an additional 13.5 wetland acres adjacent to the illegal discharge site *after* the cease and desist order was issued.

The Corps' response to this illegal filling was to issue an after-the-fact permit for *both* the 44 acres of fill which were the subject of the cease and desist order *and* an additional 8.5 acres of illegal fill in wetlands purchased and knowingly filled *after* the order. In addition, the Corps issued a permit authorizing filling of the remaining five wetland acres purchased after the 1985 cease and desist order. The discharger's investment in the 13.5 acres of undeveloped wetland was used by the Corps to justify the permit issuance, despite the fact that the discharger made the investment after the cease and desist order, with full knowledge that its development was restricted by §404.

Finally, in issuing the permit, the Corps required the discharger to mitigate for only half of the wetlands filled. The success of even that limited mitigation in compensating for the lost wetland resources is highly speculative. If this is the level of enforcement that the Corps invests in protecting wetlands under §404, where is the deterrent and why should anyone obey the law?

The Russo permit was ultimately vetoed by EPA on May 9, 1988. However, the case provides a clear example of how the existing §404 program squanders valuable agency resources. Huge amounts of staff time were consumed in FWS's evaluation and elevation of the permit decision and EPA's §404(c) action. If the Corps had taken strict enforcement action at the outset in 1981, there could well be 52.5 more acres of wetlands in the Hackensack Meadowlands, and all three agencies could have been restricting wetland fills elsewhere in New Jersey, rather than fighting over a _fait accompli_.

The GAO Report describes similar egregious examples of lax enforcement in each of the five Corps districts investigated. GAO Report at 67-71. The Vicksburg District's Regulatory Branch Chief offered that that district's reluctance to pursue litigation against uncooperative violators has sent a clear message to the public that there is little risk of penalty for filling wetlands in violation of §404. _Id_. at 70.

The Corps' defense of this horrendous record is, in large part, that "the Corps has traditionally viewed seeking voluntary compliance rather than punitive legal action as "good government." GAO Report at 72. Sanctioning wetlands destruction is not good government, it is _no_ government.

If the United States enforced its tax laws the way it is enforcing its wetlands laws, this country would be financially bankrupt. At this rate, it may soon bankrupt its wetland resource account.

The National Wildlife Federation concurs in the GAO conclusion that EPA has not used its §404 enforcement authority as effectively as it could. See, GAO Report at 60-62 and 73-74. While EPA's comments on the Draft GAO Report ask GAO to recognize EPA's leadership role in interpreting the §404(b)(1)Guidelines and administering the §404 program, EPA's apparent willingness to defer to the Corps on the definition of fill, on wetlands delineations, and on other crucial §404 issues seems to undermine this position. See, GAO Report, Appendix III, at 100, 104. EPA should in fact take a leadership role in resolving these issues.

In addition, the GAO Report confirms that EPA uses its veto authority infrequently. GAO Report at 51. While we recognize that EPA has stepped up its veto activity, and we applaud that fact, we concur with GAO that EPA's veto authority is a powerful wetlands protection tool that can and should be used more readily. Id.

Finally, we concur with the GAO finding that EPA could make better use of its limited enforcement resources by making enforcement a higher priority and by better coordinating its enforcement actions with the Corps. Id. at 73.

With passage of the 1987 amendments to the Clean Water Act, Congress gave both the EPA and the Corps authority to use administrative penalties to enforce §404. This new authority is a positive move and one which we endorse fully. To the credit of the EPA, this agency has issued several administrative penalties in recent months.

While part of the enforcement dilemma under §404 is attributable to lack of resources, and we agree that both EPA and the Corps must have better and increased resources if wetlands are to be protected, the existing resources can be put to much better use.

RECOMMENDATIONS:

The Corps must be directed to place greater emphasis on enforcing permits once issued. The Corps must also tailor its administrative and legal responses to violations to deter future illegal activity, rather than simply bringing the violator into compliance.

The EPA should begin to increase its field presence and to make more aggressive use of both its §404(c) and its enforcement authority.

Finally, Congress must provide both agencies greatly increased resources if this recommendation is to succeed.

CONGRESS MUST BROADEN THE ACTIVITIES REGULATED UNDER §404 TO CONTROL DRAINAGE, CLEARING, DREDGING, AND OTHER FORMS OF WETLAND DESTRUCTION.

The Corps frequently blames Congress for the ineffectiveness of the §404 permit program in protecting wetlands, claiming that some 80% of the Nation's wetland losses cannot be regulated under §404. See, e.g., 1985 Senate Oversight Hearings, at 61. While we submit (and the Courts have confirmed) that the Corps is entirely too restrictive in its interpretation of the activities covered under §404, it is true that §404 does not presently cover many of the activities which alter and destroy wetlands.

For example, at least according to the Corps, one can drain wetland by ditching without invoking §404 as long as the spoil material is not deposited back in the wetland. Corps personnel have offered this recipe for wetlands destruction on numerous occasions. Further, thousands of acres of bottomland hardwoods and other riparian wetlands have been destroyed through inundation by impoundment of water. Section 404 does not regulate this inundation. Hence, if we are to conserve our Nation's remaining wetlands, §404 coverage must include such activities as wetland drainage, clearing of wetland vegetation, excavation of wetland soils, and wetland inundation.

RECOMMENDATION:

Congress should broaden the activities regulated under §404 to control the channelization, excavation, drainage, clearing, flooding, and dredging of wetlands and other waters of the United States.

RECOMMENDATIONS AND CONCLUSIONS

There appears to be a clear consensus, including within the Corps itself, that the §404 program is not regulating the continuing loss of wetlands in this country. While the failure of the §404 program is attributable in part to statutory limitations on the regulatory authority of the Corps and EPA and a lack of resources, it is largely attributable to the Corps' persistent efforts to deregulate wetland destruction and EPA's failure to use its veto authority and its enforcement authority aggressively.

As a starting point to begin remedying these deficiencies, the NWF suggests that the following specific administrative changes be made in the §404 program:

1. Congress should, at a minimum, direct the Corps to base its permit decisions on the §404(b)(1) Guidelines. Congress should also go one step further: transfer the §404 program to an agency prepared to protect wetlands.

2. Congress should direct the Corps to shift the focus of federal wetlands regulation from paper pushing to conservation.

3. Congress should direct the Corps to abandon the commerce clause test and instead employ exclusively its wetlands definition to determine whether particular wetlands fall within the scope of §404.

4. Congress should direct the Corps and EPA to abandon the Solid Waste Material MOA and adopt a joint definition of "fill" which requires a §404 permit review for any fill material which replaces portions of waters of the United States with dry land or changes the bottom elevation of a water body for any purpose.

5. Congress should direct the Corps to revoke NWP 26 and revise the NWP program to require detailed predischarge information from all applicants and to enforce NWP conditions.

6. Congress should direct the Corps to adopt a sequenced no-net-loss mitigation policy that requires avoidance, minimization and, as a last resort, compensation for unavoidable losses to achieve no-net-loss of wetland acreage and values.

7. Congress should direct the Corps to put a higher priority on enforcing permits once they are issued. Administrative and legal responses to violations must be tailored to deter future illegal activity, rather than simply bringing the violator into compliance. EPA should begin to increase its field presence and make aggressive use of both its §404(c) and its enforcement authority. Congress must provide the additional resources needed for this increased activity.

Finally, while we offer these administrative recommendations, we submit that protecting our Nation's wetlands simply will not be accomplished through "fine-tuning," or even "retro-fitting," the existing §404 program.

As we stated at the outset, to protect our Nation's wetlands, Congress must:

1. Shift responsibility for the §404 program from the Army to a federal agency with a greater interest in wetlands protection;

2. Provide sufficient resources to that agency to properly enforce the law; and

3. Broaden the activities regulated under §404 to control the channelization, excavation, drainage, clearing, flooding, and dredging of wetlands and other waters of the United States.

EXHIBIT A

DEPARTMENT OF THE ARMY

CECW-OR

2[illegible]

MEMORANDUM FOR: SEE DISTRIBUTION

SUBJECT: Executive Order on Federalism

1. Enclosed is an Executive Order (EO) on Federalism signed by the President on 26 October 1987. This EO provides some interesting information on Federalism in regulatory programs. In particular, Section 2(i) states "[u]ncertainties regarding the legitimate authority of the national government should be resolved against regulation at the national level." This language provides support for our position that if you have no clear legal authority to regulate you should not.

2. Please review this for information and provide it to districts within your division.

Encl

B N Goode

B. N. GOODE
Chief, Regulatory Branch
Operations and Readiness Division
Directorate of Civil Works

DISTRIBUTION:
(See pg. 2)

DEPARTMENT OF THE ARMY
NORTH ATLANTIC DIVISION, CORPS OF ENGINEERS
90 CHURCH STREET
NEW YORK, N.Y. 10007-2979

REPLY TO ATTENTION OF
CENAD-CO-OP (11-3)

8 February 1988

MEMORANDUM FOR:

Commander, New York District ATTN: CENAN-OP-R
Commander, Philadelphia District ATTN: CENAP-OP-R
Commander, Baltimore District ATTN: CENAB-OP-R
Commander, Norfolk District ATTN: CENAO-OP-P

SUBJECT: Executive Order on Federalism:

1. Forwarded is a copy of CECW-OR letter of 20 January 1988, subject as above, which furnishes an executive order on Federalism.

2. It should be noted that OCE has indicated that the executive order supports the position that the legal authority to regulate at the national level should be clear. Otherwise, you ought not to regulate.

FOR THE COMMANDER:

Encl

ROBERT KAHN, P.E.
Chief, Construction-Operations
Division

DEPARTMENT OF DEFENSE
UNITED STATES OF AMERICA

DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 1715
BALTIMORE, MARYLAND 21203-1715

REPLY TO ATTENTION OF:
Operations Division

MAY 18 1988

RECEIVED
MAY 20 1988
NWF WILDLIFE TEAM

Mr. Jerry Jackson
Counsel, Fisheries and
Wildlife Division
National Wildlife Federation
1412 Sixteenth Street, N.W.
Washington, D.C. 20036-2266

Dear Mr. Jackson:

I am replying to your letter of 6 April 1988 concerning the reach of jurisdiction under Section 404 of the Clean Water Act.

The purpose of the memorandum from my Chief, Regulatory Branch, was to emphasize the necessity to have legally supportable evidence to assert 404 jurisdiction over isolated waters and wetlands. The example of "geese and ducks" is an exaggerated example used to drive the point home to his regulatory staff. It was not meant to be a literal threshold and none of our regulators consider it so.

Recently my regulatory staff met with officials of the Environmental Protection Agency, the Fish and Wildlife Service, and the National Marine Fisheries Service to discuss defining jurisdiction for the 404 program and particularly non-tidal isolated wetlands. General agreement was reached on making this determination but further discussions are being scheduled for refinement.

If you have any further questions, please feel free to call me or have your staff call my action officer, Mr. John P. O'Hagan at (301) 962-4646.

Sincerely,

Bernard E. Stalmann
Colonel, Corps of Engineers
District Engineer

EXHIBIT B

21 APR 1988

CENAB-OP-R (1145)

MEMORANDUM THRU: Commander, U.S. Army Engineer Division, North Atlantic, 90 Church Street, New York, NY 10007-9998

FOR: Commander, U.S. Army Corps of Engineers, Department of the Army, Washington, DC 20314-1000

SUBJECT: Scope of Section 404 Authority in Seasonal Wet Forested Areas (Wet Woods)

1. Reference:

a. 33 CFR 328.3, Preamble.

b. Multiple letter, CENAD-CO-OP, 8 February 1988, subject: Executive Order on Federalism.

2. The purpose of this memorandum is to highlight an ever present regulatory challenge between the Corps of Engineers (CE), Environmental Protection Agency (EPA), and the Fish and Wildlife Service (F&WS), regarding the scope of Section 404 authority. Recently I visited sites within the coastal plain which are characterized primarily as isolated seasonal wet forested areas (wet woods). These areas have the necessary parameters (facultative plants, hydric soils and evidence of hydrology) to be considered wetlands when using the Corps Wetland Delineation Manual. However, it is not clear to me that these areas can be interpreted as "waters of the United States" within the purview of Section 404. Historically, this District has not regulated these areas pursuant to Section 404. Guidance from higher authority on what constitutes "waters of the United States" is contained in reference 1a. This guidance leaves much open to interpretation at the District level. In addition, guidance contained in reference 1b provides that the legal authority to regulate at the national level should be clear, otherwise don't regulate.

3. I feel compelled to speak out as development is increasing at an alarming pace throughout the state of Maryland. We are now faced with numerous permit applications for developments in wet wooded areas that do not have a clear connection to interstate commerce. This is becoming a focal issue within a ten mile radius of Ocean City, Maryland where expansion of new development catering to tourism is evident. My concern is that I do not have the resources to cover all the bases, and I have elected not to regulate seasonal wet wooded areas without both clearer guidance and resources.

Encls

BERNARD E. STALMANN
Colonel, Corps of Engineers
Commanding

4/20 FRANCIS/CENAB-OP-RS/ldp/2450.
SCHWARM/CENAB-OP-RS
DOLGOS/CENAB-OP-RE
RUGIEL/CENAB-OP-RE
WASHINGTON/CENAB-OP-RS
MILCHLING/CENAB-OP-RW
SMITH/CENAB-OP-RR
ROESEKE/CENAB-OP-R
CUCINA/CENAB-OP
O'HAGAN/CENAB-OP
SEITZ/CENAB-EX
SAUER/CENAB-DD-C
STALMANN/CENAB-DE

EXHIBIT C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

Colonel E. Stalmann
District Engineer
Baltimore District
Corps of Engineers
P.O. Box 1715
Baltimore, Maryland 21203

MAR 30 1988

Attention: Steve Harmon

Dear Colonel Stalmann:

This letter is in reference to a proposal by Michael T. Rose Associates to construct a road in wetlands to gain access to upland property. The property (South Creek View) contains wetlands that were mapped by the National Wetland Inventory as PFOIA (Palustrine-Forested-Broadleaved deciduous-temporarily flooded).

The site is located south of Back Bay Beach, southwest of Shady Side near the confluence of South Creek and West River in Anne Arundel County, Maryland. The proposal is to construct a 4,000 - 5,000 linear foot, two lane road through wetlands. The area of wetlands that will be filled for the road is approximately 5.3 acres. The extent to which wetlands will be affected outside of the road corridor is uncertain at this time, but the extent of the wetland impact area may exceed ten acres. The site was inspected by an interagency team of EPA and Fish and Wildlife Service personnel on March 9, 1988. A representative of the applicant also attended the meeting. The soils, vegetation and surface hydrology were noted along the proposed road corridor. Using the EPA wetland delineation criteria, it was determined that much of the proposed corridor is located in wetlands and that 5.3 acres is a reasonable estimate of the area of wetlands that are proposed to be filled. The full extent of the wetland impact had not been determined at that time.

EPA believes that the wetlands of the project site are "waters of the United States." The vegetated community is dominated by facultative wetland plant species, the soils are hydric and evidence of surface water hydrology exists. We also believe that due to the size of the fill area, the range of its affects and its proximity to South Creek, an individual permit should be required for work in this area.

The wetland area to be affected will result in the filling of 5.3 acres. The filling may affect a total wetland area of over ten acres. In addition, an appraisal of the habitat indicates that it is suitable for American Woodcock (Scolopax minor) an interstate, migratory game bird (Cade, 1985).

We have requested project drawings directly from the applicant's representative so that we may evaluate the total wetland impact in more detail. We believe however that the nature of the project, and the extent of potential impact, merits consideration as an individual permit. In addition, we plan to consult with you and your staff to clarify some of the differences in perception between the agencies regarding the extent of regulatory authority over some of these wetland areas.

If you have any questions regarding this or similar issues please contact Mr. Peter Stokely (FTS 597-7817) of my staff.

Sincerely,

for

John R. Pomponio, Chief
Environmental Assessment Branch

Ref. Cade, B. S. 1985. Habitat Suitability Index Models: American Woodcock (Wintering). U.S. FWS Biol. Rpt. 82(10.105) Washington, D.C. 23 pp.

cc: FWS, Annapolis

JUN 21 '88 07:27 HQUSACE

EXHIBIT D

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
WASHINGTON, D.C. 20314-1000

REPLY TO
ATTENTION OF:

CECW-OR

25 MAY 1988

MEMORANDUM THRU: Commander, North Atlantic Division; ATTN: CENAD-CO

FOR: Commander, Baltimore District; ATTN: CENAB-OP

SUBJECT: Scope of Section 404 Authority in Seasonal Wet Forested Areas

1. This concerns your 21 April 1988 memorandum concerning regulation under Section 404 of the Clean Water Act of the subject areas. My regulatory staff has reviewed the information you provided.

2. We understand from your staff through CENAD that there is some uncertainty that the subject areas fit at least two of the technical parameters for wetlands, namely vegetation and hydrology. The water table is normally at the surface in the winter and beginning of the growing season, but rapidly drops due to evapotranspiration as the season progresses. The vegetation is approximately split between wetland and upland species.

3. Our position is that, where there is reasonable doubt that a site fits the definition of wetland at 33 CFR 328.3(b), districts should not regulate it. We do not have adequate resources to regulate those areas that clearly do fit the definition and should not expend resources on questionable areas.

4. You may want to coordinate with Region III of the Environmental Protection Agency to give them the opportunity to seek "special case" states under the Memorandum of Understanding on Geographic Jurisdiction.

FOR THE COMMANDER:

JOHN P. ELMORE
Chief, Operations and Readiness Division
Directorate of Civil Works

EXHIBIT E

8 JUN 1981

DAEN-CWO-N

Miss R. Sarah Compton
Deputy Assistant Administrator for
 Water Enforcement and Permits
U. S. Environmental Protection Agency
Washington, D. C. 20460

Dear Miss Compton:

I am responding to your April 30 letter on the solid waste issue.

There is no change in the Corps' position as expressed last year in correspondence and meetings. We believe EPA (or the states) should regulate the discharge of all solid waste pollutants under Section 402 unless the primary purpose of the discharge is to create a "fill" in the traditional sense. If anything, our resistance has increased with the knowledge that our regulatory program will have to take a significant slice of the OMB directed cuts. I have discussed this subject with the Chief of Engineers and the designated Assistant Secretary of the Army for Civil Works, both of whom support my position.

You make a persuasive argument for the 404 program being a better regulatory mechanism than 402, but I believe all the shortcomings you list for the 402 program can be administratively remedied under EPA's broad legislative authorities. Since most of the states have taken over the 402 program, whereas none have taken over the transferable portion of the 404 program, the 402 alternative would be more consistent with Congressional and Administrative initiatives to reduce Federal regulatory controls and would involve less Federal resources to administer. Furthermore, when Congress carved out of the Clean Water Act a narrow category of pollutants (dredged and fill material) to be regulated by the Corps of Engineers, I find it difficult to imagine that it intended 404 be a catch-all for such discharges as "garbage, trash, and sludge" as mentioned in the preamble to your consolidated permit regulations published May 19, 1980.

rs/20199/
TYPED 28

DAEN-CWO-N
Miss R. Sarah Compton

Incidentally, I noted your chronology of transactions on this issue did not list our June 19, 1980, letter to Mr. Beck. I have inclosed a copy for your files.

I regret our resource posture will simply not allow us to take on this new responsibility and request that you amend 40 CFR 122.3 to reinsert the "primary purpose" test for defining "fill Material."

Sincerely,

SIGNED

1 Incl
As stated

E. R. HEIBERG III
Major General, USA
Director of Civil Works

CF:
SACW

CWM-A
CWO

Return CWO-N Rm 6235

MFR: Gen. Heiberg and Mr. Gianelli (ASA(CW) agreed at meeting 5/26/81 that Gen. Heiberg would answer Miss Compton's letter and Mr. Gianelli would informally discuss with Mr. Hernandez (EPA Deputy Administrator).

EXHIBIT F

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

WPCB

RECEIVED
EPA - REGION 10
FEB 19 1987
WATER DIVISION
OFFICE OF WATER

FEB 17 1987

RECEIVED
FEB 19 1987
WATER PERMITS & COMPLIANCE BRANCH
EPA-REGION 10

MEMORANDUM

SUBJECT: Consultation with OWEP on NPDES Permits for Solid Waste Discharge

FROM: James R. Elder, Director
Office of Water Enforcement and Permits

David G. Davis, Acting Director
Office of Wetlands Protection

TO: Water Management Division Directors, Region I-X

In March of 1986, the Department of the Army and the U.S. Environmental Protection Agency (EPA) (51 FR 8871, March 14, 1986) entered into a Memorandum of Agreement (MOA) (copy attached) intended to help clarify permitting and enforcement responsibilities for solid and semi-solid waste discharges to U.S. waters (including wetlands) under section 402 and 404 of the Clean Water Act.

It has come to our attention that several NPDES permit applications for discharge of solid wastes under the MOA are being considered by the regions and States. Because of the precedential nature of the decisions, we request that you consult with OWEP on all NPDES permit decisions covered by the MOA.

In accordance with the MOA, wastes of a homogenous nature normally associated with a single industry and discharged from a fixed conveyance or trucked from a single site are subject to the provisions of the section 402 NPDES program. Under the MOA, EPA's primary concern is its ability and the authorized States' ability to apply section 402 to the discharge of solid and semi-solid wastes to waters of the U.S. (including wetlands), in a way that adequately protects the environment. In order for us to adequately assess the effectiveness of the MOA and the use of section 402 to permit these discharges, we need to have early, complete information on the actions under review.

We are now aware of a number of section 402 permit applications under the MOA, all of which involve wetlands. An informal survey of 37 States revealed significant differences in the way liquid or solid waste discharges to wetlands are regulated under State law. Coverage of wetlands under State water quality standards ranged from good to nonexistent, and none of the surveyed States had numerical criteria expressly for wetlands.

From our limited experience in trying to implement the MOA, we believe that technology-based requirements may be appropriate for some discharges of solid and semi-solid wastes on a case-by-case basis. However, such requirements will often be overridden by more stringent water quality-based limits due to the nature of the wastes and the usual methods of disposal. The applicability and appropriateness of State water quality standards in these situations are therefore crucial to the effectiveness of the section 402 NPDES permit.

The complexity and uniqueness of the issues arising under the MOA will make it difficult but nevertheless very important to assure national consistency at an acceptable level. It is important that the affected regions and States are kept informed of recent developments in this area. The Permits Division in OWEP will serve as a contact point for receiving and distributing relevant information such as the attached case example concerning a proposed fly ash discharge to wetlands.

Please have your staff notify the Permits Division as soon as possible of any NPDES permit applications under the MOA. Stephen Bugbee (475-9539), will be the contact and coordinate OW's review and consultation. If you have further questions concerning the MOA, please contact Martha Prothro, Director, Permits Division at 475-9545, or have your staff contact Steve Bugbee.

Attachments

DEPARTMENT OF DEFENSE

Department of the Army

ENVIRONMENTAL PROTECTION AGENCY

Water Pollution Control; Memorandum of Agreement on Solid Waste

February 28, 1986.

AGENCY: Department of the Army, DoD, and Environmental Protection Agency.

ACTION: Notice of agreement.

SUMMARY: The Department of the Army and the Environmental Protection Agency (EPA) have entered into an agreement to promote effective control under the Clean Water Act (CWA) of discharges of solid and semi-solid waste materials discharged into the waters of the United States for the purpose of disposal of waste.

DATE: The Memorandum of Agreement (MOA) was executed on January 23, 1986, and shall take effect on April 23, 1986. Written comments received on or before June 23, 1986, will be considered in any future revisions undertaken to the Agreement. Written comments received after June 23, 1986, will be considered if the timing of any future revision allows for such consideration.

ADDRESSES: Office of the Assistant Secretary of the Army (Civil Works), U.S. Department of the Army, Room 2E570, Washington, DC 20310-0103; or Office of Federal Activities (A-104), U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460.

FOR FURTHER INFORMATION CONTACT:

Morgan Rees, Assistant for Regulatory Affairs, Office of the Assistant Secretary of the Army (Civil Works), Department of the Army, Pentagon, Room 2E569, Washington, DC 20310, (202) 695-1376.

John Meagher, Director, Aquatic Resources Division, Office of Federal Activities (A-104), Environmental Protection Agency, Washington, DC 20460, (202) 382-5043.

SUPPLEMENTARY INFORMATION: Under section 404 of the CWA, the Army Corps of Engineers (and States approved by EPA) issue permits for discharges of dredged and fill material into waters of the United States which comply with the Act and applicable regulations. Under section 402 of the CWA (the National Pollutant Discharge Elimination System or NPDES Program), EPA (and States approved by EPA) issue permits for discharges of all other pollutants into waters of the United States, which comply with the Act and applicable regulations.

The MOA was entered into to resolve a difference (since 1980) between Army and EPA over the appropriate CWA program for regulating certain discharges of solid wastes into waters of the United States. The Army Corps of Engineers' definition of "fill material" provides that only those materials discharged for the primary purpose of replacing an aquatic area or of changing the bottom elevation of a waterbody are regulated under the Corps section 404 permit program. These discharges include discharges of pollutants intended to fill a regulated wetland to create fast land for development. The Corps definition excludes pollutants discharged with the primary purpose to dispose of waste which, under the Corps definition, would be regulated under section 402. Under EPA's definition of "fill material," all such solid waste discharges would be regulated under section 404, regardless of the primary purpose of the discharges. This difference has complicated the regulatory program for solid wastes discharged into waters of the United States.

A February 1986 Settlement Agreement in *NWF v. Marsh*, a case brought by 16 environmental groups against Army and EPA on a number of section 404 matters required resolution of the definition of fill issue by September 1986. Army and EPA have been working toward a resolution since settlement. In Section 404 oversight hearings conducted by the Senate Environment and Public Works Committee in 1985, EPA and Army agreed to make every effort to resolve the matter by the end of 1985.

The agreement published today provides an interim arrangement between the agencies for controlling discharges. In the longer term, EPA and Army agree that consideration given to the control of discharges of solid waste both in waters of the United States and upland should take into account the results of studies being implemented under the 1984 Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA), signed into law on November 8, 1984.

The amendments to RCRA require EPA, by November 8, 1987, to submit a report to Congress determining whether the RCRA Subtitle D Criteria (40 CFR Part 257) are adequate to protect human health and the environment from groundwater contamination, and recommending whether additional authorities are needed to enforce the Criteria. In addition, EPA must revise the Criteria by March 31, 1988, for solid waste disposal facilities that may receive hazardous household waste or small quantity generator hazardous waste. At a minimum, these revisions should require not only groundwater monitoring as necessary to detect contamination, but should also establish criteria for the acceptable location of new or existing facilities, and provide for corrective action, as appropriate.

The main focus of the interim arrangement is to ensure an effective enforcement program under section 309 of the CWA for controlling discharges of solid and semi-solid wastes into waters of the United States for the purpose of disposal of waste. When warranted, EPA will normally initiate section 309 action to control such discharges. If it becomes necessary to determine whether section 402 or 404 applies to an ongoing or proposed discharge, the determination will be based upon criteria in the agreement, which provide, inter alia, for certain homogeneous wastes to be regulated under the section 402 (NPDES) Program and certain heterogeneous wastes to be regulated under the section 404 Program.

To promote regulatory consistency for those seeking to apply for authorization to discharge these wastes into waters of the United States, the agreement encourages the use of the criteria in the MOA by prospective dischargers. It also provides a procedure for the agencies' consideration of any permit applications received, and calls upon the agencies to advise prospective dischargers regarding the probable acceptability of certain kinds of wastes for discharge into waters of the United States.

This agreement does not affect the regulatory requirements for materials discharged into waters of the United States for the primary purpose of replacing an aquatic area or of changing the bottom elevation of a water body. Discharges listed in the Corps definition of "discharge of fill material," 33 CFR 323.2(l) remain subject to section 404 even if they occur in association with discharges of wastes meeting the criteria in the agreement for section 402 discharges.

Unless extended by mutual agreement, the agreement will expire at such time as EPA has accomplished specified steps in its implementation of RCRA, at which time the results of the study of the adequacy of the existing Subtitle D criteria and proposed revisions to the Subtitle D criteria for solid waste disposal facilities, including those that may receive hazardous household wastes and small quantity generator waste, will be known. In addition, data resulting from actions under the interim agreement can be considered at that time.

The Department of Army and EPA will ensure that decisions made pursuant to this agreement meet the requirements of the CWA and are consistent with the Act's objective to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. EPA and Army will also take steps to ensure that discharges of solid and semi-solid wastes into waters of the United States are evaluated consistently under the section 402 and 404 programs, and that this agreement will be implemented in a manner that imposes no unnecessary burden on the regulated sector.

Text

January 17, 1986.

Memorandum of Agreement Between the Assistant Administrators for External Affairs and Water, U.S. Environmental Protection Agency, and the Assistant Secretary of the Army for Civil Works Concerning Regulation of Discharge of Solid Waste Under the Clean Water Act

A. Basis of Agreement

1. Whereas the Clean Water Act has as its principal objective the requirement "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters; and,

2. Whereas section 301 of the Clean Water Act prohibits the discharge of any pollutant into waters of the United States except in compliance with sections 301, 302, 306, 307, 318, 402, and 404 of the Act; and

3. Whereas EPA, and States approved by EPA, have been vested with authority to permit discharges of pollutants, other than dredged or fill material, into waters of the United States pursuant to section 402 of the Clean Water Act that satisfy the requirements of the Act and regulations developed to administer this program promulgated at 40 CFR 122-125; and

4. Whereas the Army, and States approved by EPA, have been vested with authority to permit discharges of dredged or fill material into waters of the United States that satisfy the requirements of the Act and regulations developed to administer this program promulgated at 33 CFR Part 320 *et seq.* and 40 CFR Part 230 *et seq.*; and

5. Whereas the definitions of the term "fill material" contained in the aforementioned regulations have created uncertainty as to whether section 402 of the Act or section 404 is intended to regulate discharges of solid waste materials into waters of the United States for the purpose of disposal of waste; and

6. Whereas the Resource Conservation and Recovery Act Amendments of 1984 (RCRA) require that certain steps be taken to improve the control of solid waste; and

7. Whereas interim control of such discharges is necessary to ensure sound management of the Nation's waters and to avoid complications in enforcement actions taken against persons discharging pollutants into waters of the United States without a permit;

8. The undersigned agencies do hereby agree to use their respective abilities cooperatively in an interim program to control the discharges of solid waste material into waters of the United States.

B. Procedures

1. When either agency is aware of a proposed or an unpermitted discharge of solid waste into waters of the United States, the agency will notify the discharger of the prohibition against such discharges as provided in section 301 of the Clean Water Act. Such notice is not a prerequisite for an enforcement action by either agency.

2. Normally, if an activity in B.1 above warrants action, EPA will issue an administrative order or file a complaint under section 309 to control the discharge.

3. In issuing a notice of violation or administrative order or in filing a complaint, it is not necessary in order to demonstrate a violation of section 301(a) of the Clean Water Act to identify which permit a permitless discharge should have had. However, after an enforcement action has commenced, a question may be raised by the court, discharger, or other party as to whether a particular discharge having the effect of replacing an aquatic area with dry land or of changing the bottom elevation of a water body meets the primary purpose test for "fill material" in the Corps definition (33 CFR 323.2(k)). For example, such question may be raised in connection with a defense, or it may be relevant to the relief to be granted or the terms of a settlement.

4. To avoid any impediment to prompt resolution of the enforcement action, if such a question arises, a discharge will normally be considered to meet the definition of "fill material" in 33 CFR 323.2(k) for each specific case by consideration of the following factors:

a. The discharge has as its primary purpose or has as one principal purpose of multi-purposes to replace a portion of the waters of the United States with dry land or to raise the bottom elevation.

b. The discharge results from activities such as road construction or other activities where the material to be discharged is generally identified with construction-type activities.

c. A principal effect of the discharge is physical loss or physical modification of waters of the United States, including smothering of aquatic life or habitat.

d. The discharge is heterogeneous in nature and of the type normally associated with sanitary landfill discharges.

5. On the other hand, in the situation in paragraph B.3., a pollutant (other than dredged material) will normally be considered by EPA and the Corps to be subject to section 402 if it is a discharge in liquid, semi-liquid, or suspended form or if it is a discharge of solid material of a homogeneous nature normally associated with single industry wastes, and from a fixed conveyance, or if trucked, from a single site and set of known processes. These materials include placer mining wastes, phosphate mining wastes, titanium mining wastes, sand and gravel wastes, fly ash, and drilling muds. As appropriate, EPA and the Corps will identify additional such materials.

6. While this document addresses enforcement cases, prospective dischargers who apply for a permit will be encouraged to use the above criteria for purposes of project planning. If a prospective discharger applies for a section 404 permit based on the considerations in paragraph B.4., or for a Section 402 permit based on the considerations in paragraph B.5., the application will normally be accepted for processing. If a prospective discharger applies for a 404 permit for discharge of materials that might be hazardous, he shall be advised that discharges of wastes to waters of the United States that are hazardous under RCRA are unlikely to comply with the section 404(b)(1) Guidelines. To facilitate processing of applications for permits under sections 402 or 404 for discharges covered by this agreement, an application for such discharge shall not be accepted for processing until the applicant has provided a determination signed by the State or appropriate interstate agency that the proposed discharge will comply with applicable provisions of State law including applicable water quality standards, or evidence of waiver by the State or interstate agency. As mandated under the Clean Water Act, neither a 402 nor a 404 permit will be issued for a discharge of toxic pollutants in toxic amounts. Prospective applicants for section 402 permits shall be advised that the proposed discharge will be evaluated for compliance with the Act, in particular with sections 101(a), 301, 302, 304, 307, 402, and 403 of the Act.

C. Determination of Permit

1. In enforcement cases, where a question arises under paragraph B.3 as to which permit would be required for a permitless discharge, the enforcing agency will determine whether the criteria in paragraph B.4 or B.5, if either, have been satisfied, with concurrence from the other agency. If the enforcing agency concludes that neither set of the criteria has been met and additional analysis is required to determine which Section applies, or if the necessary concurrence is not forthcoming promptly, the Division Engineer and the Regional Administrator (or designees) will consult and determine which permit program is applicable.

2. In non-enforcement situations, the agency receiving an application shall determine whether it meets the criteria in paragraphs 4 or 5, as the case may be. If the agency determines that the criteria applicable to its permit program have not been met, it will ask the other agency to determine whether the criteria for the latter's permit program have been met.

If neither agency determines that the criteria for its permit program have been met, the Division Engineer and the RA (or their designees) shall consult and determine which agency shall process the application in question.

D. Publication in the "Federal Register"

Since this Memorandum of Agreement clarifies the definition of fill material with

respect to discharges of solid waste into waters of the United States, the parties to this agreement shall jointly publish it in the **Federal Register** within 45 days after it has been signed.

E. Effective Dates

1. This agreement shall take effect 60 days after the date of the last signature below and will continue in effect until modified or revoked by agreement of both parties, or revoked by either party alone upon six months written notice.

2. This agreement automatically expires at such time as EPA has submitted its Report to Congress on the Results of Study of the Adequacy of the Existing Subtitle D Criteria and has published a Notice of Proposed Revisions to the Subtitle D Criteria in the **Federal Register**, unless the agencies mutually agree that extension of this agreement is needed.

Dated: January 22, 1986.

Jennifer J. Manson,

Assistant Administrator for External Affairs, U.S. Environmental Protection Agency.

Dated: January 23, 1986.

Larry Jensen,

Assistant Administrator for Water, U.S. Environmental Protection Agency.

Dated: January 17, 1986.

Robert K. Dawson,

Assistant Secretary of the Army (Civil Works).

Dated: March 11, 1986.

Jennifer J. Manson,

Assistant Administrator for External Affairs, U.S. Environmental Protection Agency.

Lawrence J. Jensen,

Assistant Administrator for Water, U.S. Environmental Protection Agency.

Robert K. Dawson,

Assistant Secretary of the Army for Civil Works, Department of the Army.

[FR Doc. 86-[illegible] Filed 3-13-86; 8:45 am]

BILLING CODE [illegible]

Intent To Prepare a Draft Supplemental Environmental Impa Statement (SEIS) for the East-Ban Barrier Levee Feature of the New Orleans to Venice, Louisiana, Hurricane Protection Project

AGENCY: New Orleans District, A Corps of Engineers, DOD.

ACTION: Notice of intent to prep draft SEIS.

SUMMARY:

1. Proposed Action

In 1962, Pub. L. 87-874, 87th Cong authorized the project "Mississip River Delta at and below New O to Venice, Louisiana." The proje would prevent tidal damages al Mississippi River in lower Plaqu Parish, Louisiana, by increasing

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 2 1987

OFFICE OF
WATER

Mr. Dennis Capella, Director
Bureau of Water Quality Management
Department of Environmental Resources
Commonwealth of Pennsylvania
P.O. Box 2063
Harrisburg, Pennsylvania 17120

Dear Mr. Capella:

Thank you for your letter of July 11, 1986 requesting guidance on the drafting of a National Pollutant Discharge Elimination System (NPDES) permit for the discharge of fly ash into wetlands. You also indicated that your Department would prefer not to issue a NPDES permit since you are in the process of issuing a solid waste disposal permit for the same activity. As explained below, a solid waste permit is not a substitute for a NPDES or section 404 permit. However, Pennsylvania's approved NPDES permit program does not appear to address the type of discharge you describe. Thus, for a NPDES permit to be issued, Pennsylvania's authority will need to be clarified or supplemented. In addition, we are concerned that even if this were done, it may not be possible to allow the disposal of fly ash into wetlands and still satisfy all relevant provisions of State and federal law.

Section 402 NPDES Requirements Apply in this Case

As you know, a State may choose to have a consolidated permit program under which permits include NPDES requirements as well as requirements of other federal or State programs. However, Pennsylvania's solid waste disposal permit is not a substitute for a NPDES permit since it does not satisfy the requirements of section 402 of the CWA, federal NPDES regulations, or Pennsylvania's federally-approved NPDES program requirements. Even if a discharger has a State solid waste disposal permit, nothing in the CWA or 40 CFR Part 122 of the NPDES regulations relieves a person otherwise subject to sections 301 and 402 of the CWA from the requirement to obtain a NPDES permit. The disposal of solid waste fill materials from a point source into waters of the U.S. (including wetlands) falls under the definition of discharge of a pollutant in 40 CFR 122.2.

In addition, Congress expressed the intent that industrial discharges subject to the CWA remain subject to that Act, not to the Resource Conservation and Recovery Act (RCRA). Section 1004(27) of RCRA specifically excludes "industrial discharges which are point sources subject to permits under section 402 of the (CWA)" from the definition of solid waste. Therefore, under federal law, a solid or hazardous waste disposal permit cannot authorize the discharge of solid waste to wetlands as a substitute for a NPDES permit.

As you know the recent Memorandum of Agreement (MOA) between the Department of the Army and the U.S. Environmental Protection Agency (EPA) (51 FR 8871, March 14, 1986) helps to clarify permitting and enforcement responsibilities for solid and semi-solid wastes under sections 402 and 404 of CWA. In accordance with the MOA, wastes of a homogenous nature normally associated with a single industry and discharged from a fixed conveyance, or, if trucked, from a single site, such as fly ash, are subject to the provisions of the section 402 NPDES program. (Please see the MOA for a better understanding of how jurisdiction is determined.) Under the MOA, EPA's primary concern is the ability to apply section 402 to the discharge of solid and semi-solid wastes to waters of the U.S. (including wetlands) in a way that adequately protects the environment. To determine whether such ability exists, we must carefully examine the specific authorization each NPDES State sought and received.

Pennsylvania's NPDES Program May Not Authorize Permit Issuance

EPA's recent review of Pennsylvania's legal authority to administer the NPDES permit program revealed an inconsistency with federal law in the definition of "waters of the Commonwealth", including the exclusion of wetlands. (These and other comments were formally transmitted to your office in a March 24, 1986 memorandum from our Region III, Philadelphia office.) If State waters in fact exclude all wetlands or the type of wetlands at issue in the permit discussed in your letter, Pennsylvania would have no authority to process NPDES permits for discharges into those areas. However, EPA could not issue a permit instead of the State since EPA is not authorized to issue permits in authorized NPDES States.

If the Pennsylvania Attorney General is able to demonstrate that the Pennsylvania NPDES program does address wetlands, the State would be authorized to process a NPDES permit application for the discharge of solid waste. If no such authority exists, Pennsylvania would need to amend its program pursuant to 40 CFR 123.62 to include wetlands in the definition of State waters. Should a program revision be necessary, we would be happy to provide you with specific guidance as to the applicable requirements you would need to meet. For instance, while the State definition would have to be as comprehensive as the federal definition of waters of the United States, Pennsylvania's permitting approach could be more stringent. For example, some States have chosen to prohibit all discharges of solid waste into wetlands.

State and Federal Law May Be Found to Preclude Fly Ash Disposal in Wetlands

It is important to recognize that the applicant will have a heavy burden to carry in obtaining a NPDES permit. Assuming that technology-based limits would be developed on a "best professional judgment" basis, we would expect the permit writer to carefully examine other treatment and disposal techniques besides discharge into wetlands. In view of the Act's "zero discharge" goal, the existence of land-based treatment and disposal alternatives would be highly relevant. The feasibility, cost, removal capabilities and non-water quality impacts of all alternatives must be carefully examined in determining BAT and BCT requirements.

The goal of the CWA is clear "...to restore and maintain the chemical, physical and biological integrity of the Nation's waters". I do not believe that the degradation or destruction of waters of the U.S. by the disposal of solid and semi-solid pollutants in wetlands is in keeping with the intent of section 402 and the CWA.

Additionally, the ability of the discharger to meet State water quality standards will be a very significant consideration. While technology-based requirements must be applied to solid and semi-solid waste dischargers on a case-by-case basis, such requirements may be less limiting than water quality-based limits, due to the nature of the wastes and the usual means of disposal involved. Technology-based standards applied literally and directly to the point source, which may be a truck or other vehicle are highly unlikely to be adequately protective of water quality. The applicability and appropriateness of State water quality standards for the described materials are therefore crucial to the effectiveness of the section 402 NPDES permit in protecting the environment.

It may be difficult, if not impossible, for the permit writer to develop limitations sufficient to assure compliance with the "four freedoms" under federal regulation (40 CFR §131.11 (b)) and State law (25 Pa. code §93.6) and Pennsylvania's anti-degradation policy (25 Pa. code §95.1). While we do not rule out the possibility that a person seeking to discharge solid waste into wetlands will be able to obtain a section 402 permit, we think it is more likely that the permit will need to be denied or issued with a "no discharge" limitation because the applicant will not be able to discharge without violating State water quality standards and/or the Act's technology-based requirements.

EPA has formed a Task Force to explore ways in which the MOA may be effectively implemented to protect the environment, taking into account the issues discussed above. We are hopeful that with more experience and development of further guidance, the regulation of solid and semi-solid wastes under the MOA will become better understood. In the meantime, if you have further questions concerning section 402 permitting of solid waste discharges into wetlands, please contact Martha Prothro, Director, Permits Division, at 202-475-9545.

Sincerely,

Rebecca W. Hanmer

Rebecca W. Hanmer
Deputy Assistant Administrator

EXHIBIT G

September 22, 1987

Operations, Construction,
and Readiness Division

Mr. Paul Morris
Box 1163
Kamiah, Idaho 83536

Dear Mr. Morris:

This is in regard to your proposed placer mining project in Newsome Creek, located in Sec. 5, T.29N., R.7E., B.M., Idaho County, Idaho, which was the subject of your Joint Application for Permit, Idaho State No. 82-S-265, dated September 15, 1987.

In accordance with Section 402 of the Clean Water Act (33 U.S.C. 1344), a National Pollutant Discharge Elimination System (NPDES) Permit may be required from the Environmental Protection Agency for the direct discharges from a placer mining operation, such as wastewater discharges and the discharge of processed gravel and other streambed material. I have forwarded a copy of your application to them for appropriate action. Any questions you may have regarding the NPDES Permit should be directed to:

Mr. Wally Scarburgh
Environmental Protection Agency
Idaho Operations Office
422 West Washington
Boise, Idaho 83702
Telephone (208) 334-1450

In accordance with Section 404 of the Clean Water Act (33 U.S.C. 1344), a permit is required from the Corps of Engineers for the discharge of dredged or fill material into waters of the United States, including wetlands. Placer mining projects commonly include activities which may involve such discharges. These activities include, but are not limited to:

a. Construction of access roads and ramps.

b. Construction of berms and cofferdams.

c. Construction of stream diversion structures.

d. Backfilling of stream channels.

e. Disposal or stockpiling of overburden.

f. Stockpiling of material to be processed.

g. Construction of sedimentation ponds.

If a proposed project includes any of these activities or other similar activities involving discharges of material into waters of the United States, including wetlands, a Section 404 permit is required and must be obtained prior to the start of work. If you should have any questions or need further information, please write or call Mr. Jim Fellows at (509) 522-6724.

Sincerely,

G. Dean Hilliard
Chief, Regulatory Branch

FELLOWS/dgh
PROFFROCK/OP
HILLIARD/OP
IM-SM
OP-RF

Copy furnished:

Mr. Wally Scarburgh
Environmental Protection Agency
Idaho Operations Office
422 West Washington
Boise, Idaho 83702

Idaho Department of Water Resources
Northern District Office
Route 5, Box 203, Suite #9
Coeur d'Alene, Idaho 83814

Nez Perce Tribal Executive Committee
Post Office Box 305
Lapwai, Idaho 83540

Mike Doherty
Corps of Engineers
c/o U.S. Forest Service
1201 Ironwood Drive
Coeur d'Alene, Idaho 83540

July 2, 1987

Operations, Construction,
and Readiness Division

Mr. Gary R. Stone
Route 1
Kimberly, Idaho 83341

Dear Mr. Stone:

This is in regard to your proposed placer mining project in the Snake River, located in Sec. 4, T.10N., R.18E., and Secs. 32 and 33, T.9N., R.18E., B.M., Twin Falls County, Idaho, which was the subject of your Joint Application for Permit, dated June 1987.

In accordance with Section 402 of the Clean Water Act (33 U.S.C. 1344), a National Pollutant Discharge Elimination System (NPDES) Permit may be required from the Environmental Protection Agency for the direct discharges from a placer mining operation, such as wastewater discharges and the discharge of processed gravel and other streambed material. I have forwarded a copy of your application to them for appropriate action. Any questions you may have regarding the NPDES Permit should be directed to:

Mr. Wally Scarburgh
Environmental Protection Agency
Idaho Operations Office
422 West Washington
Boise, Idaho 83702
Telephone (208) 334-1450

In accordance with Section 404 of the Clean Water Act (33 U.S.C. 1344), a permit is required from the Corps of Engineers for the discharge of dredged or fill material into waters of the United States, including wetlands. Placer mining projects commonly include activities which may involve such discharges. These activities include, but are not limited to:

a. Construction of access roads and ramps.

b. Construction of berms and cofferdams.

c. Construction of stream diversion structures.

d. Backfilling of stream channels.

e. Disposal or stockpiling of overburden.

f. Stockpiling of material to be processed.

g. Construction of sedimentation ponds.

If a proposed project includes any of these activities or other similar activities involving discharges of material into waters of the United States, including wetlands, a Section 404 permit is required and must be obtained prior to the start of work.

Based on the information provided in your Joint Application for Permit, referenced above, it appears that your project will not include any discharges of dredged or fill material into waters of the United States, including wetlands which are regulated under Section 404 of the Clean Water Act. If this is the case, a Department of the Army permit is not required.

This determination is applicable only to Department of the Army permits administered by the Corps of Engineers. It does not relieve you of the responsibility to obtain any other Federal, state, and local permits which may be required. Your project may be within the jurisdiction of the National Flood Insurance Program. It is recommended that you contact your city or county zoning office regarding any approvals required under the National Flood Insurance Program. If you should have any questions or need further information, please write or call Mr. Jim Fellows at (509) 522-6724.

Sincerely,

G. Dean Hilliard
Chief, Regulatory Branch

FELLOWS/dgh
~~PROEFROCK~~/OP
~~DALY/OP~~
~~HILLIARD~~/OP
IM SM
OP-RF

Copy furnished:

Mr. Wally Scarburgh
Environmental Protection Agency
Idaho Operations Office
422 West Washington
Boise, Idaho 83702

Copies furnished: Cont'd

✓ Idaho Department of Water Resources
Western Regional Office
2735 Airport Way
Boise, Idaho 83705

✓ Mr. Ken Stutzman
Route 1, Box 4771
Twin Falls, Idaho 83301

✓ John Olson, Lucky Peak Project Office

June 24, 1987

Operations, Construction,
and Readiness Division

Mr. Joseph J. Swaner
Box 57
Bellevue, Idaho 83313

Dear Mr. Swaner:

This is in regard to your proposed placer mining project in Willow Creek, located in Sec. 15, T.1S., R.16E., Boise Meridian, which was the subject of your Joint Application for Permit, Idaho State No. 37-S-485, dated March 30, 1987.

In accordance with Section 402 of the Clean Water Act (33 U.S.C. 1344), a National Pollutant Discharge Elimination System (NPDES) Permit may be required from the Environmental Protection Agency for the direct discharges from a placer mining operation, such as wastewater discharges and the discharge of processed gravel and other streambed material. I have forwarded a copy of your application to them for appropriate action. Any questions you may have regarding the NPDES Permit should be directed to:

Mr. Wally Scarburgh
Environmental Protection Agency
Idaho Operations Office
422 West Washington
Boise, Idaho 83702
Telephone (208) 334-1450

In accordance with Section 404 of the Clean Water Act (33 U.S.C. 1344), a permit is required from the Corps of Engineers for the discharge of dredged or fill material into waters of the United States, including wetlands. Placer mining projects commonly include activities which may involve such discharges. These activities include, but are not limited to:

a. Construction of access roads and ramps.

b. Construction of berms and cofferdams.

c. Construction of stream diversion structures.

HANSEN/op
FELLOWS/cns
PROEFROCK/o
DALY/op
HILLIARD/op
IM-SM
OP-RF

d. Backfilling of stream channels.

e. Disposal or stockpiling of overburden.

f. Stockpiling of material to be processed.

g. Construction of sedimentation ponds.

If a proposed project includes any of these activities or other similar activities involving discharges of material into waters of the United States, including wetlands, a Section 404 permit is required and must be obtained prior to the start of work.

Based on the information provided in your Joint Application for Permit, referenced above, it appears that your project will not include any discharges of dredged or fill material into waters of the United States, including wetlands which are regulated under Section 404 of the Clean Water Act. If this is the case, a Department of the Army permit is not required.

This determination is applicable only to Department of the Army permits administered by the Corps of Engineers. It does not relieve you of the responsibility to obtain any other Federal, state, and local permits which may be required. Your project may be within the jurisdiction of the National Flood Insurance Program. It is recommended that you contact your city or county zoning office regarding any approvals required under the National Flood Insurance Program. If you should have any questions or need further information, please write or call Mr. Jim Fellows at (509) 522-6724.

Sincerely,

G. Dean Hilliard
Chief, Regulatory Branch

Copy furnished:

Mr. Wally Scarburgh
Environmental Protection Agency
Idaho Operations Office
422 West Washington
Boise, Idaho 83702

Idaho Department of Water Resources
Western Regional Office
2735 Airport Way
Boise, Idaho 83705

MFR: Tried to call Mr. Swaner twice on 6/24/87. There was no answer. Letter should be self explanatory.

EXHIBIT H

VIOLATION CASE SUMMARY
June 9, 1986

Name: WI Forest Products, Inc.

Reference No.: 071-OYC-2-002356

Location: Pend Oreille River near Dover, Idaho

Activity:

Discharge of wood waste into river and adjacent wetlands.

Brief History:

30 Apr 85 - Cease and Desist Order issued.
15 Nov 85 - Site inspection by Mike Doherty. Unauthorized material removed from riverbank. Remaining material is grandfathered and waste.
16 Dec 85 - Letter to EPA notifying of waste material on site.
16 Apr 86 - Violation resolved. Determination of action - no further action, no permit required. Remaining fills not fill material under 404 definition, they are waste material subject to EPA jurisdiction.

Current Status:

Resolved.

DETERMINATION OF ACTION

Unauthorized Activity
W I Forest Products
Pend Oreille River
071-OYC-2-002356

Activity: Placement of fill material in the Pend Oreille River and adjacent wetlands without benefit of a Department of the Army Permit which, at the time of construction, was required under Section 10 of the River and Harbor Act of 1899 and Section 404 of the Clean Water Act.

Factors Considered: My investigation of this matter included evaluation of the fact that W I Forest Products has removed all of the material placed below the ordinary high water mark. The fills in adjacent wetlands were determined to be a violation of Section 402 and has been referred to the Environmental Protection Agency.

Other factors considered included the almost certain probability that the activity was accomplished without knowledge of the Department of the Army Permit requirements and the timely removal of the material when directed to do so by the Corps of Engineers.

Determination: After full consideration of the factors related to this matter, it is hereby determined that no criminal or civil action against W I Forest Products is warranted, that it is, therefore, unnecessary to refer this matter to the U.S. Attorney and that no further action is required.

April 16, 1986
DATE

James B Royce
James B. Royce
Colonel, Corps of Engineers
District Engineer

December 16, 1985

Operations, Construction,
and Readiness Division

Ms. Ernesta B. Barnes
Environmental Protection Agency
1200 Sixth Avenue, M/S 423
Seattle, Washington 98101

Dear Ms. Barnes:

Earlier this year, Mr. Mike Doherty, my Field Representative in Coeur d'Alene, discovered an unauthorized discharge of sawdust, lumber, and concrete along the shoreline of the Pend Oreille River at River Mile 114.0, in Sec. 31 and 32, T.57N., R.2W., B.M., near Dover, in Bonner County, Idaho. This property is owned by WI Forest Products, Incorporated, and a Cease and Desist Order was issued to them on April 30, 1985 (copy enclosed).

At an on-site meeting, they agreed to remove this material. A subsequent inspection revealed that they have satisfactorily removed all unauthorized material below the line of ordinary high water.

During our initial on-site meeting, however, we discovered two sites on the property where wood waste had been placed in wetland areas adjacent to the Pend Oreille River. One of these is a large area of wood waste placed in a cattail marsh to the northwest of the mill. Our investigation of this matter revealed that this material was placed prior to enactment of the Clean Water Act in 1976 and therefore is outside of our jurisdiction.

At the other site, sawdust is being discharged into a wetland area to the north of the mill. We have completed our evaluation of this activity and have determined that this material is being disposed of for no specific purpose other than disposal and therefore it does not meet the definition of fill material. Consequently, this activity cannot be regulated by the Corps of Engineers under Section 404 of the Clean Water Act and we request that the Environmental Protection Agency pursue this matter under Sections 308 and 309 of the Clean Water Act.

DALY/dgh
ROEFROCK/OP
FELLOWS/OP.
HILLIARD/OP
HETTENHOUSER/
LEONARD/OP
WINBORG/OP
STANFORD/OC
HOLMES/EA
~~SALT/DE-B~~
ROYCE/DE
ASG
OP

Enclosed are location maps, a ground photograph, and a copy of an aerial photograph to assist you in locating this activity. Please contact Mr. Brad Daly at FTS 434-6723 or Mr. Mike Doherty at FTS 442-7237 with regard to any questions you may have in this matter.

Sincerely,

James B. Royce
Colonel, Corps of Engineers
District Engineer

Enclosures

Copy furnished:

Mike Doherty
c/o U.S. Forest Service
1201 Ironwood Drive
Coeur d'Alene, Idaho 83814

EXHIBIT I

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Post Office Box 845
Cookeville, TN 38501

RECEIVED
JUL 14 1988
NWF WILDLIFE TEAM

July 12, 1988

Colonel Robert D. Brown, III
District Engineer
U. S. Army Corps of Engineers
502 Eighth Street
Huntington, W VA 25701-2070

Re: Public Notice No. 88-57
Application by TIPCO to operate a coal and sand dredge on the Tug Fork, Mile 1.05, Lawrence County, Kentucky

Dear Colonel Brown:

The Fish and Wildlife Service has reviewed the subject permit application. The proposal includes the dredging of substrate materials from the Tug Fork for the purpose of removing commercially valuable coal. The dredged material would be processed in an onshore processing plant and most sand and water would be discharged directly back into Tug Fork immediately downstream of the dredge site.

The proposed project would be similar to many other coal and/or sand dredging facilities authorized to dredge in the Big Sandy, Tug Fork, and Levisa Fork within the Commonwealth of Kentucky. Our records indicate that in the past five years 49 such facilities have been permitted to operate on these three rivers directly affecting more than 18 linear miles of river channel. The Fish and Wildlife Service and Kentucky Department of Fish and Wildlife Resources have repeatedly expressed strong concerns regarding both the individual and cumulative impacts of these facilities. Both agencies have strongly objected to the practice of discharging spoil materials to the river channels in agency responses to individual permit applications and comments provided on the Huntington District's report on coal dredging in the Big Sandy River (1982).

Environmental agency concerns have not been addressed and the individual and cumulative impacts of river coal and sand dredging go unmitigated. While other environmental perturbations within the Big Sandy basin are being addressed allowing for gradual improvement of aquatic conditions, the cumulative adverse impacts of river dredging continue to mount.

Disposal of excess dredged material is an essential aspect of the commercial river dredging process. As such the adverse impacts thereof should be addressed during any related permit evaluation (e.g. Corps of Engineers Section 10 permit). Previous correspondence with the Huntington District indicates, however, that the District will make "...no attempt to directly regulate the processing plant discharge, because this regulatory authority was assigned to the U.S. Environmental Protection Agency/State by Section 402 of the Clean Water Act".

The Huntington District is assuming that a Section 402 Discharge Elimination System permit will be issued and assure the environmental acceptability of such discharges. The Service agrees that a Section 402 permit is required and such permit would help to insure that these discharges meet water quality standards and the aquatic habitat protection objective of the Clean Water Act. We note, however, that in regard to river coal and sand dredging the Kentucky Department for Environmental Protection and the U.S. Environmental Protection Agency have failed to implement Section 402. In addition, as argued by the Service during development of the 404(b)(1) Guidelines, Section 402 of the Clean Water Act does not require evaluation of practicable alternative methods or consideration of water dependency making it unsuitable for regulation of this type of activity. In this particular situation, efforts to avoid duplication of effort during permit evaluation are resulting in the equivalent of administrative repeal of federal statutes intended to protect aquatic resources. The legislative history of the Clean Water Act and federal court decisions interpreting the intent of Congress relevant to the Act clearly indicate that some overlap of permit authority was intended. The question of applicability of Section 10 of the Rivers and Harbors Act and Sections 401, 402, and 404 of the Clean Water Act is, in our opinion, not always an "either...or" situation. In addition, in order to conduct an accurate and complete environmental analysis and public interest review of a permit activity, it is obvious that all integral project features and activities, including those which might be regulated by other agencies, must be considered.

In summary, it is the opinion of the Fish and Wildlife Service that several agencies, including the Corps of Engineers, are not fulfilling their obligations to insure protection of Public Trust resources in the Big Sandy River Basin. These agencies are not fully exercising the regulatory authority provided in the Clean Water Act and Rivers and Harbors Act. This persistent problem appears to stem from interpretation of various agency regulations. In regard to permit application Tug Fork-Dredge-11.43 advertised in Public Notice Number 88-57, the Fish and Wildlife Service recommends that the permit be denied. This recommendation is based on both site specific and cumulative impacts of this and other similar projects in the Big Sandy River Basin. If the Huntington District concludes that the permit should be issued, the Service recommends that the permit application be forwarded to the Ohio River Division Engineer in accordance with 33 CFR 325.8(b)(3) in order to help resolve apparent conflicts between federal law and related agency policies, regulations, and procedures. We further recommend that the Corps of Engineers closely coordinate this issue with the Environmental Protection Agency and Kentucky Department for Environmental Protection in an effort to insure compliance with Sections 401 and 402 of the Clean Water Act.

These constitute the comments of the U.S. Department of the Interior in accordance with the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), and are consistent with the National Environmental Policy Act of 1969.

Sincerely,

Robert T. Bay

Robert T. Bay
Acting Field Supervisor

RTB/b

xc:
Regional Administrator, EPA, Atlanta, GA
Mr. Bill Ainslie, EPA, Atlanta, GA
Mr. John Marlor, EPA, Atlanta, GA
ARD, FWS, FWE, Atlanta, GA (Attn: John Baumeister)
FWS, BFA, Washington, DC (Attn: Dan Smalley)
Assistant Field Supervisor, FWS, Elkins, W VA
Division Engineer, USACOE, Cincinnati, OH
Mr. Wayne Davis, KYDFWR, Frankfort, KY
Director, Division of Water, KYDNREP, Frankfort, KY
Mr. Don Walker, Division of Water, KYDNREP, Frankfort, KY
Mr. Tom Fitzgerald, Kentucky Resources Council, Frankfort, KY
Ms. Jan Goldman-Carter, NWF, Washington, DC
Mr. Steve Hiniker, Sierra Club, Harpers Ferry, W VA

EXHIBIT J

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Post Office Box 845
Cookeville, TN 38501

RECEIVED
JUL 14 1988
NWF WILDLIFE TEAM

July 12, 1988

Colonel Robert D. Brown, III
District Engineer
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502 Eighth Street
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The proposed project would be similar to many other coal and/or sand dredging facilities authorized to dredge in the Big Sandy, Tug Fork, and Levisa Fork within the Commonwealth of Kentucky. Our records indicate that in the past five years 49 such facilities have been permitted to operate on these three rivers directly affecting more than 18 linear miles of river channel. The Fish and Wildlife Service and Kentucky Department of Fish and Wildlife Resources have repeatedly expressed strong concerns regarding both the individual and cumulative impacts of these facilities. Both agencies have strongly objected to the practice of discharging spoil materials to the river channels in agency responses to individual permit applications and comments provided on the Huntington District's report on coal dredging in the Big Sandy River (1982).

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In summary, it is the opinion of the Fish and Wildlife Service that several agencies, including the Corps of Engineers, are not fulfilling their obligations to insure protection of Public Trust resources in the Big Sandy River Basin. These agencies are not fully exercising the regulatory authority provided in the Clean Water Act and Rivers and Harbors Act. This persistent problem appears to stem from interpretation of various agency regulations. In regard to permit application Tug Fork-Dredge-11.43 advertised in Public Notice Number 88-57, the Fish and Wildlife Service recommends that the permit be denied. This recommendation is based on both site specific and cumulative impacts of this and other similar projects in the Big Sandy River Basin. If the Huntington District concludes that the permit should be issued, the Service recommends that the permit application be forwarded to the Ohio River Division Engineer in accordance with 33 CFR 325.8(b)(3) in order to help resolve apparent conflicts between federal law and related agency policies, regulations, and procedures. We further recommend that the Corps of Engineers closely coordinate this issue with the Environmental Protection Agency and Kentucky Department for Environmental Protection in an effort to insure compliance with Sections 401 and 402 of the Clean Water Act.

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Mr. Tom Fitzgerald, Kentucky Resources Council, Frankfort, KY
Ms. Jan Goldman-Carter, NWF, Washington, DC
Mr. Steve Hiniker, Sierra Club, Harpers Ferry, W VA

EXHIBIT K

US Army Corps
of Engineers
Office, Chief of Engineers

Regulatory Guidance Letter

No. 88-6 Date : 27 June 88 Expires 31 Dec 90

CECW-OR

RECEIVED
JUN 29 1988
NWF WILDLIFE TEAM

SUBJECT: Nationwide Permit Program

1. The purpose of the Corps of Engineers Nationwide Permit Program is to authorize activities that cause only minimal individual and cumulative environmental effects with little, if any, delay or paperwork. The NWPs were subject to public comment through the rulemaking process and appropriate documentation was developed prior to their issuance. Therefore, FOAs should make every effort to minimize overall effort on each action. Too much effort expended on any one action defeats the goal of the program.

2. Several questions have surfaced regarding specific provisions of the Nationwide Permit Program as promulgated on 13 November 1986. The following guidance is provided to address those questions.

3. NATIONWIDE PERMITS (33 CFR 330.5).

a. NWP 7(33 CFR 330.5(a)(7)). Provides authorization for outfall structures and associated intake structures where the outfall has an NPDES permit. Section 405 of the Water Quality Act of 1987 exempts stormwater outfalls from the requirement to obtain an NPDES permit until October 1988. This exemption provision of the Water Quality Act of 1987 is considered adequate to satisfy the NPDES permit requirement of this Nationwide Permit for stormwater outfalls. Therefore, outfall structures which qualify for this exemption and meet the other terms and conditions of NWP 7 are authorized by this NWP. After October, only those stormwater outfalls with discharges receiving an NPDES permit can be authorized under this NWP.

b. NWP 12 (33 CFR 330.5(a)(12)). Authorizes the discharge of backfill or bedding for utility lines. This NWP is not restricted to "crossing" situations as is NWP 14. That is, a utility line can be placed through a wetland parallel to upland areas, and is not restricted to situations where streams or other waterways with an ordinary high water mark (OHWM) must be crossed. The control over adverse impacts to the aquatic environment is through the requirement to restore the site to its actual preconstruction bottom contours. This authorization does include the temporary side-casting of material that occurs with normal construction practice provided the best management practices at 330.6 are complied with to the maximum extent practicable. In particular, the disturbance from sidecasting must be minimized to the extent practicable and all sidecast material must be entirely removed or returned to the original trench. The sidecast material may be used to construct temporary cofferdams, access roads, etc., but no additional fill, temporary or permanent, is authorized under this NWP. Also, this NWP does not authorize tile drains or other drainage works where the wetland through which the pipeline is being constructed is being drained. The NWP does authorize pipelines conveying drainage collected from other areas..

c. NWP 14 (33 CFR 330.5(a)(14)). Authorizes minor road fills that are single and complete projects for crossing nontidal waterbodies. In order for this NWP to apply, the road must cross a surface waterbody with an OHWM; that is, a lake, pond, river, stream or other open water area. The fill material discharged into wetlands adjacent to the waterbody is limited to a maximum of 100 linear feet in wetlands on either side of the OHWM on each side of the waterbody. In cases where wetlands exist waterward of the OHWM, the total encroachment into wetlands, both above and below the OHWM, on either side of the open water channels, is limited to 100 linear feet. Measurements should be made along the centerline of the roadway crossing the water of the U.S. The discharge is further limited by 33 CFR 330.6, best management practices, which require the minimization, to the extent practicable, of disturbance of a water of the U.S., including wetlands, as compatible with sound road construction practices.

d. NWP 26 (33 CFR 330.5(a)(26)). Authorizes minor fills in the headwaters of streams and in isolated waters, sometimes involving the predischarge notification procedures at 330.7. Judgment must be used in determining "loss or substantial adverse modification" of waters of the U.S. A substantial adverse modification occurs when a discharge eliminates or greatly reduces the principle valuable function(s) of a water of the U.S., including wetlands. The impacts factored into this determination must be the direct (i.e., area covered by the fill) or closely related indirect (i.e., change in vegetation such as might occur after flooding a portion of forested swamp by constructing a dam and thereby killing all of the trees), and must be substantial. Any indirect impact factored into the determination must similarly eliminate or greatly impair the principle valuable functions (e.g., water quality enhancement, fishery nursery area, wildlife habitat, flood storage, etc.) of the water of the U.S. In the example above, a judgment must be made on what are the principle valuable functions provided by the forested swamp in its present state. As an example, assume that the principal function of forested swamp is wildlife habitat. Backflooding may or may not be a "substantial adverse modification" depending on the extent to which it impacts the overall wetland. While it may be an adverse impact to certain types of wildlife currently inhabiting the impact area, it could increase diversity of habitat and improve the value of wetland overall for wildlife. As another example, a fill could indirectly eliminate the principle valuable function(s) by blocking backflooding of a wetland that previously provided flood storage or water quality renovation, thereby reducing or eliminating the wetland's value for these functions.

Areas excavated and areas affected by the excavation should not be factored into the acreage as lost or substantially modified, unless the permittee cannot practicably conduct the excavation without the discharge that is subject to the NWP. Furthermore, impacts resulting from increased use by humans of a wetland area as a result of a small fill should not be included. However, such indirect impacts may contribute to the the basis for asserting discretionary authority if they involve concerns for the aquatic environment as outlined in 40 CFR Part 230. Indirect impacts such as backflooding and dewatering are more strongly related to the discharge and should be considered if they are likely to result in substantial, long-term damage.

(e) Single and complete project: Linear projects by their nature will likely have minimal impacts on several different waterbodies (i.e., tributaries, ponds and isolated waters). Districts should be careful when determining what constitutes a separate waterbody. Individual channels in a braided stream or individual arms of a large, irregularly-shaped wetland or lake, etc., are not separate waterbodies. For linear projects, the single and complete project requirement for individual NWPs will be applied to a waterbody crossing at a single location. That is, each waterbody impacted by a roadway will be considered a single and complete crossing at that location. Where a roadway intersects a single waterbody, such as a meandering river at separate but distant locations, each crossing is considered a single and complete crossing. The purpose of the "single and complete project" language is to preclude situations where one project will repeatedly crisscross one waterbody when such multiple crossings can be practicably avoided. It was also meant to preclude constructing a crossing and adding lanes later. This approach may result in multiple application of the NWP on a lengthy project that crosses several rivers or tributaries to a river, or a single, large river at several distant locations.

f. Quantities: Several NWPs authorize certain cubic yardages of material to be discharged or excavated (i.e., 13, 14, 18 and 19). In all such cases, the volume is to be determined by the material that is discharged or excavated below the plane of the OHWM in non-tidal waters, or the high tide line in tidal waters. For example, if an average of 2 cubic yards of material is placed for bank stabilization per running foot, but of that total only 0.8 cubic yards per running foot are below the plane of the high tide line, the project would be authorized by NWP 13 (provided all other conditions are met). Furthermore, the material placed landward of the OHWM, even though it is below the plane of OHWM, is not included in the volume measurement, nor is backfill material placed in areas excavated channelward of the OHWM. For example, the area adjacent to the waterway (above the OHWM) may be excavated for placement of base material for a minor road crossing. Such excavations may become flooded and are temporarily below the plane of the OHWM extended. Material placed in such excavations does not count in the volume measurements. In addition, for NWP 13 and 14 the material is limited to the purpose stated (i.e., for the road crossing or bank stabilization).

g. OHWM: The OHWM is the physical evidence (shelving, debris lines, etc.) established by normal fluctuations of water level. For rivers and streams, the OHWM is meant to mark the within-channel high flows, not the average annual flood elevation that generally extends beyond the channel. Wetlands often extend beyond the OHWM. However, for the sake of defining the applicability to NWPs 13, 14, 18 and 19, volume measurements are measured below the OHWM and do not include the volume of material placed in wetlands unless these wetlands are located channelward of the OHWM. The NWPs have other limitations that govern the amount of fill placed in wetlands (e.g., NWP 14 is limited to no more than 100 linear feet of fill in wetlands on either side of the open water channel, and NWP 13 does not allow any placement of fill in wetlands).

h. Multiple use of NWPs.

(1) Use of Multiple Nationwide Permits in a Single Project: It is entirely appropriate to combine two or more nationwide permits to authorize an activity. For example, a project that includes both a minor road crossing and downstream bank stabilization work could be authorized under NWPs #13 and 14 provided that the conditions of those permits are met. Likewise, a project that involves a fill resulting in up to one acre of impacts above the headwaters as well as a minor road crossing fill, is authorized under a combination of NWPs 26 and 14 without the requirement for a pre-discharge notification (PDN). In other words, the acreage limitations of NWP 26 do not include the acreage that may be impacted by other nationwide permit authorizations which may be part of the same project. However, NWP 26 cannot be "stacked" on itself; that is, NWP 26 may not be used more than once on a single project. Acreage limitations should be figured on a per project basis. For example, where fill for an industrial park would substantially impact a cumulative total of more than 1 acre of wetland, even where spread between two or more wetlands, the PDN should be triggered. This does not, however, apply to linear projects.

(2) Combining Nationwide Permits with Individual Permits: It may be appropriate, in some cases, to allow independent parts of a larger project to proceed under the authority of the nationwide permits while evaluating an individual permit application for other portions of the same project. However, portions qualifying for a NWP should be able to function or meet their purpose without the portion requiring an individual permit.

(3) Whether or not the activities qualifying for nationwide permits are authorized to proceed separately or are included in an individual permit application, the decision documentation relating to the individual permit will include a discussion of the rationale for the course of action taken. Also, a discussion on the total impacts of the entire project (i.e., both the portions authorized by individual and nationwide permit) will be included in the individual permit documentation.

4. Predischarge notification procedures (33 CFR 330.7):

a. Signature authority: Signature authority can be delegated from the district or division engineer to any appropriate level within the district or division, respectively.

b. District engineer and resource agency comments: When the district forwards a PDN to the division under either of the two provisions of 330.7 (c)(1), it will provide a recommendation on which the division can base its decision under 330.7(d). This recommendation can be either before or after receipt of resource agency comments by the district. However, the district should be aware of the concerns the agencies are likely to express to the division engineer and respond to those concerns in its recommendation, especially where the district thinks the activity should be authorized over agency recommendations to the contrary. In any event, the resource agency comments must be forwarded to the division so that they can be considered and addressed by the division engineer. This entire evaluation process must be completed within the 20-day limit. In coordination with the resource agencies the district engineer should establish a reasonable date by which the resource agencies must submit their comments in order to be considered within the 20 days. If the date is missed by the resource agencies the division engineer need not address those comments pursuant to 330.7(d).

c. NWP 26:

(1) "May be required": 330.7(a)(2) states that an applicant shall not proceed if the district engineer notifies him that an individual permit "may be required." This was not intended to be used by a district to notify the applicant that more than 20 days would be needed for review and may not be used in that fashion.

(2) Information needed: Upon receipt of an application, regulatory staff will, when reviewing the application, determine whether or not the activity may be covered by a general permit, including nationwide permits. If an application has adequate information to be considered as a PDN it will be so considered. When a district engineer determines that information in an application or PDN is insufficient for the PDN process, he may request that information prior to starting the 20-day clock. Such request must be made immediately and only for additional information needed to meet the minimum requirements of 330.7(b). Information provided by the permittee, relating to the extent of waters of the United States to be impacted by the proposal, will be reviewed by the district and may, in some instances, require confirmation through a field inspection. This review must take place within the overall 20-day timeframe for PDN review. When verifying that an activity is authorized under a NWP, the district should notify the permittee that if the information he submits and on which the Corps bases its NWP and jurisdictional determinations is later found to be in error, the authorization may be subject to modification, suspension or revocation.

When a landowner proceeds with a discharge without going through the PDN process (where required), the DE should, in coordination with the appropriate agencies, determine the best way to proceed. Options include: whether to authorize the project under NWP, seek discretionary authority and require an after-the-fact permit application, or initiate an enforcement action.

5. Discretionary authority (33 CFR 330.8). Discretionary authority can only be exerted as a result of concerns for the aquatic environment as expressed in the 404(b)(1) Guidelines. The district engineer is authorized to add conditions to the NWPs on a case-by-case basis when the applicant agrees to the conditions. If no mutual agreement with the applicant can be reached, the division engineer may require conditions on a case-by-case basis. If a categorical or regional restriction to the NWP is needed, it should be accomplished by the division engineer asserting discretionary authority and adding the appropriate conditions through evaluation procedures in 33 CFR 325. Divisions should not restrict a NWP through discretionary authority then develop a regional general permit for the activities formerly covered by the NWP since any protection or allowances afforded by a regional permit can be placed on the NWP through regional conditioning.

6. State Water Quality Certification (33 CFR 330.9). If a district receives a PDN for NWP 26 in a state which has denied 401 certification for NWP 26, it normally should defer the PDN process pending the state's completion of its 401 action unless the division engineer determines that, even with a 401 certification, the discharge will likely have more than minimal adverse impacts on the environment. In this case, he should complete the PDN and notify the applicant that an individual permit is required even before he receives the 401 certification.

7. Enforcing compliance with NWPs. With the exception of the division or district engineer's discretionary authority at 33 CFR 330.8, only the Chief of Engineers can modify, suspend, or revoke a NWP. However, the district engineer can use the appropriate procedures of 33 CFR 326 and 33 CFR 325.7 on a case-by-case basis to ensure compliance with the terms and conditions of a specific authorization issued under a NWP, including those conditions that he or the division engineer may have added. The district engineer should require only those corrective actions needed to bring the discharge into compliance with the terms and conditions.

8. Cumulative Impacts. This office prepared an environmental assessment for each NWP prior to their reissuance in 1986. As part of that assessment, we considered the potential cumulative impacts of each NWP. It is, therefore, not necessary for the districts to assess the potential cumulative impacts of each and every action authorized under each NWP. However, in situations where the district engineer believes that application of several nationwide permits to one project or application of one nationwide permit repetitively by several

permittees in a defined area would result in more than minimal cumulative impacts on the aquatic environment, as determined under the 404(b)(1) Guidelines, it is appropriate to exert discretionary authority. Moreover, we have asked districts to, from time to time, conduct monitoring studies of the impacts of NWPs in their areas. The districts should periodically review a sample of actions occurring under NWP, perhaps through a comparison of their files to state, regional, or municipal files (i.e., wetland regulatory program, planning and zoning, municipal building permits, etc.) or through aerial photo interpretation.

9. This guidance expires 31 December 1990 unless sooner revised or rescinded.

FOR THE CHIEF OF ENGINEERS:

JOHN P. ELMORE
Chief, Operations and Readiness Division
Directorate of Civil Works

EXHIBIT L

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DIVISION, OHIO RIVER
CORPS OF ENGINEERS
P. O. BOX 1159
CINCINNATI, OHIO 45201 - 1159

REPLY TO
ATTENTION OF
CEORD-CO-OF (1145d)

5 February 1988

MEMORANDUM FOR: Commander, Louisville District

SUBJECT: Review of Proposed Surface Mining by the Andalex Resources, Inc., Surface Mining Application (854-0088).

I am responding to your inquiry about the applicability of 33CFR330.5(a)(21) "Nationwide Permit #21" to the subject mining proposal.

In consideration of: (a) my site investigation with you and Lee DeHihns, acting Regional Administrator, Region IV, EPA and members of each of our staffs on 17 September 1987 and, (b) review of your report and verbal communications with your staff by my staff; I have determined that, if the Andalex project receives Title V authorization under the provisions of the Surface Mining Control Act of 1977 and receives the required individual State Water Quality certification then, the Corps of Engineers authorization under 33CFR330.5(a)(21), conditioned as discussed below, should be allowed.

Although your report does not contain concerns by the EPA Regional Administrator or the USFWS Regional Director we have considered the attached EPA staff and USFWS field office comments. Attached State Division of Water and Department of Fish and Wildlife Resources comments were also considered.

The project area that has been cleared, if left without further disturbance, might revert to forested wetlands over many years, and there remains more than 300 acres proposed to be cleared. However, the reclamation plan offers the opportunity to obtain the coal resources by a proponent willing to cooperate in extensive reclamation including redevelopment of forested wetlands.

Questions such as restoration of forested wetlands, elevations, berms, hydraulics, soil disturbance and replacement, and revegetation have been addressed in the reclamation plan. I understand that your office has had extensive opportunity to review the reclamation plan and to influence it's development, and that your personnel believe that it has matured into a good plan. The questions above as well as any concerns of the National Environmental Policy Act remain subject to Title V review and approval. Title V authorization is the primary federal regulatory authorization required for surface mining activities.

Although, long term monitoring will appropriately be required by the Title V issuing agency, I recommend that you condition the permit in cooperation with the permittee as specified in 33CFR330.8(a) to require monitoring and reporting and that the results be furnished to the Corps. The results of the reclamation effort are important to our assessment of similar proposals in the future. A seasonal photographic record on the ground and by aerial means would be important during the soil shrinkage and revegetation period.

CEORD-CO-OF (1145d)
SUBJECT: Review of Proposed Surface Mining by the Andalex Resources, Inc. Surface Mining Application (854-0088)

In consideration of; the reclamation plan, the permit conditioning discussed above, the requirement of a Title V Surface Mining Permit and State Water Quality Certification, comments by review agencies and the other facts presented in your report, I find that the individual and cumulative adverse impacts on the environment for this project should be minimal for the category of work authorized under the Nationwide Permit in 33CFR330.5(a)(21). Therefore, if the work receives the Title V authorization and State water quality certification it should be authorized under the Nationwide Permit.

ERNEST J. HARRELL
Colonel, Corps of Engineers
Commanding

FEB 19 1988

CEORL-OR-FS 26 January 1988

MEMORANDUM FOR RECORD: Commander, Ohio River Division, ATTN: Roger Graham

SUBJECT: Andalex Resources, Inc., Surface Mining Application (854-0088)

1. This office has been notified of an application by Andalex Resources, Inc., for a surface mining permit (854-0088) with the Kentucky Department for Surface Mining Reclamation and Enforcement (DSMRE). This application involves mining in a 478-acre bottom land, hardwood wetland area adjacent to the Pond River, Hopkins County, Kentucky.

2. We are reviewing this surface mining activity under Section 404 of the Clean Water Act. Notification of this action is in accordance with the nationwide permit requirements of 33 CFR 330.7(c)(2),(3) and (d).

3. The U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency, and the Kentucky Department of Fish and Wildlife Resources have all submitted letters of concern requesting that an individual permit be required for this mining activity. In addition, the Kentucky Division of Water (DOW) has submitted a letter stating that they will hold the Water Quality Certification in abeyance until conflicting issues concerning this application are resolved. Copies of all agency comments are forwarded for your consideration.

4. The wetland area is composed of three natural wetland types on the approximate 478 acres of the site classified as a regulated wetland. This area consists of a palustrine forested wetland dominated by broadleafed deciduous plant species. The majority of the site is temporarily or semipermanently flooded, with only a small area (approximately 10 acres) considered a semipermanently flooded wetland.

5. During the mining process (already partially begun prior to Corps of Engineers involvement on the project), all important factors, including fish and wildlife values, would be lost. Construction of a levee on the Pond River, and the necessary excavation and earth moving activities associated with the proposed surface mining activity, would result in a change of bottom geometry and substrate composition within the current wetland area. Also, a small benthic community located within the semipermanently flooded wetland area would also be lost. The applicant has prepared a detailed mitigation plan to compensate for the majority of this loss. Attached is a brief description of the existing wetland area, and the proposed reclamation plan.

6. In addition, as DOW and DSMRE have not yet issued their respective permits, a possibility exists that some of the concerns referenced in the Environmental Agency's letter of concern will be addressed by DOW and DSMRE. Nationwide Permit No. 21 would not be applicable in this instance until both these agencies issued their permits.

CEORL-OR-FS
SUBJECT: Andalex Resources, Inc. Surface Mining Application (854-0088)

7. Please advise whether this activity qualifies as a conditional nationwide activity (dependent upon issuance of DOW and DSMRE approval), or whether an individual permit will be required. We will notify interested Federal and state agencies of your decision.

FOR THE COMMANDER:

Encl

KENNETH MATHEWS
Chief, Operations and
Readiness Division

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Post Office Box 845
Cookeville, TN 38501

January 22, 1988

Colonel Robert L. Oliver
District Engineer, U.S. Army
Corps of Engineers
P. O. Box 59
Louisville, KY 40201-0059

Dear Colonel Oliver:

In response to your December 21, 1987 request, the Fish and Wildlife Service has reviewed the information you provided regarding a proposal by Andalex Resources, Inc. to surface mine through 478 acres of regulated wetlands along the Pond River in Hopkins County, Kentucky. Per your requests our review addresses the applicability of Nationwide Permit 21 (33 CFR 330.5(a)(21)). These comments should not be construed as the Service's position on an Individual Section 404 permit for this action should one be deemed appropriate. These comments are offered in accordance with the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

Based on the information provided for review, it appears that there remains significant environmental losses which are not being adequately addressed in this latest proposal. There remains significant wetland acreage losses, and losses of wetland productivity over time. Also there remains real questions and doubts regarding the restorability of forested wetlands with this proposal due to increased elevations, subsoil disturbance, revegetation success rates, and the lack of adequate long term monitoring of the proposal.

Comparison of expected futures with and without this project identify a significant loss of acreage as well as productivity on the wetland area in question. Approximately 471 acres of regulated wetlands will be destroyed by this proposal. These wetlands consist of high quality, forested floodplain habitats along the Pond River. The proposed post-mining land use of the area replaces these wetlands and 110 acres of adjacent uplands with 373 acres of restored bottomland hardwood forests, 35 acres of shallow water depressions, 38 acres of final pit impoundments and 135 acres of upland wildlife habitat. Using the restored floodplain wetlands (373 acres of forest and 35 acres of shallow depressions) there is a guaranteed loss of 70 acres of regulated wetlands or 15 percent of the onsite wetlands.

The guaranteed acreage loss does not accurately depict the expected impact of this proposal on the wetland ecosystem. It ignores the loss of the wetlands productivity during mining. Using the following very basic assumptions:

- The value of the wetlands can be completely restored in 30 years,
- All wetlands will be destroyed immediately and all will be restored at the same time, and
- A 50-year period of analysis.

It can be stated that this proposal will result in a 40% loss of the wetlands productivity. Granted the above assumptions are questionable due to a lack of available information, and there is a significant margin of error. However, the end result could vary in either direction.

A point of major concern regarding this proposal relates to the restorability of the wetlands. The information provided reveals that the restored bottomland forest will be at elevation 380 msl. There is discussion of as much as two feet of settlement over time on the area with final elevations expected to be between 378 and 380. Based on information provided by the applicant most of the permit area is currently between 376 and 378 msl elevation. Therefore, depending on the discrepancies noted above there may be as much as a 1-3 foot increase in elevation on the area. In floodplain wetland habitats such an increase in elevation could result in the invasion of upland vegetation thereby affecting the site's productivity. In fact, during a field investigation we identified a minor ridge within this permit area with an elevation of 380 msl which would not be considered a wetland if not located within such an extensive wetland tract.

Another factor regarding wetland restorability is the issue of soil and subsoil handling and its impact on the water holding capacity of the soil. In previous discussions with the applicant we have been assured that this is not an issue in these alluvial soils but we have yet to see an analysis of the overburden at intervals from the topsoil to the coal seam addressing sand/silt/clay content and water holding capacity. Such information would be helpful in determining the need for special soil handling conditions on the permit.

Revegetation is also important when determining restorability. The information provided does not allow an analysis of the revegetation plan and discussion with individuals who have reviewed the plan state that it is vague in species selection and planting and success rates.

A final feature regarding wetland restorability is monitoring. The information provided did not address this very important issue and discussions with individuals who have reviewed the surface mining permit reveal that it was not adequately addressed there either. It is extremely important that information regarding the success or failure of the wetland restoration project be accurately portrayed and made available to the mining industry for future use.

As the previous discussions denote this proposal continues to have significant adverse environmental impacts. After carefully reviewing Nationwide Permit 21 it is the position of the Service that the individual and cumulative impacts of this proposal as it is presented and as it was presented to the Kentucky Department of Surface Mining certainly exceed "minimal" as required by that Nationwide Permit. Therefore, it is recommended that an individual permit be required for this proposal. As stated to the applicant and the Corps on numerous previous occasions, the Service is willing to assist in the development of an acceptable reclamation plan if requested.

Sincerely,

Robert T. Bay

Robert T. Bay
Acting Field Supervisor

CONFIRMATION COPY

This document was sent to you via
Electronic Mail on 19-Jan-88 @ 13:01 CST
Message 332-305 [1]

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Division of Ecological Services
P. O. Box 25039
Raleigh, North Carolina 27611-5039

EXHIBIT M

[redacted]

January 4, 1988

Colonel Paul W. Woodbury
District Engineer
U.S. Army Corps of Engineers
P. O. Box 1890
Wilmington, North Carolina 28402

Dear Colonel Woodbury:

This letter addresses the significant loss of wetlands that has occurred in North Carolina through the Wilmington District's authorization of wetland filling under authority of 33 CFR 330.5(a)(26), "Nationwide 26." My purposes in writing are: 1) to notify you that significant wetland losses are occurring in North Carolina under the present interpretation of the regulation; 2) to solicit your comments on existing policy and certain actions taken by the Wilmington District; and. 3) to solicit your views as to what may be done to alleviate the present situation. I also have used this opportunity to advise you of concerns that the Service has regarding multiple use of 33 CFR 330.5(a)(14), "Nationwide 14" for minor road crossings in North Carolina.

The concerns that we have center around what we perceive as failure to implement certain mandatory and exceptionally straightforward provisions of the regulations. The Service is aware of the history and nature of the court settlement that led to establishment of the subject regulations, and we realize that they provide explicitly for certain wetland fill activities. With these thoughts in mind, I hope that you will view our remarks in the context of concern over attainment of required wetland protection rather than an ideological dispute over the intent of Nationwide 26.

Since April 22, 1987, when the first Predischarge Notification (PDN) was issued by the Regulatory Functions Branch, a total of 21 PDNs have been provided for our review and report. The total wetland acreage affected by the combined activities is 115.7 acres. In response to each of the PDNs received, this office, without exception, has notified you that the work will or could potentially affect high quality wetlands that are important either as habitat for fish and wildlife or important for the water quality functions that the wetlands perform. On July 23, 1987 we began requesting that copies of the written decision and statement of the Division Engineer regarding the need for individual permits be provided to us in accordance with provisions contained in 33 CFR 330.7(d). To date, not a single PDN activity has been recirculated for review under individual public notice nor have we received any response to our requests for copies of the Division Engineer's decision documents. In the absence of any further correspondence from the Wilmington District, we presume that all of the work covered by PDNs to date has been authorized and the 115.7 acres of wetlands involved are now filled or approved for fill. We again request copies of all Division Engineer statements for the 21 PDN's issued to date.

In 33 CFR 330.6 the regulations state that ". . . management practices shall (emphasis added) be followed, to the maximum extent practicable, in order to minimize the adverse effect of these discharges on the aquatic environment." In the event that the management practices are not implemented, this section of the regulation goes on to state: "Failure to comply with these practices may be cause for the district engineer to recommend, or the division engineer to take, discretionary authority to regulate the activity on an individual or regional basis. . .". Selected quoted management practices include:

1. Discharges of dredged or fill material into waters of the United States shall be avoided or minimized through the use of other practical alternatives.
2. Discharges shall not restrict or impede the movement of aquatic species indigenous to the waters or the passage of normal or expected high flows or cause the relocation of the water (unless the primary purpose of the fill is to impound waters).
3. Discharge in wetlands shall be avoided.
4. Discharges into breeding areas for migratory waterfowl shall be avoided.

As stated in 33 CFR 330.5(b) of the regulation(s), specified special conditions must be followed (emphasis added) in order for all of the nationwide permits, including Nationwide 26, to be valid. Item number 14 of the listed special conditions states that ". . . the management practices listed in section 330.6 (above) of this part shall (emphasis added) be followed to the maximum extent practicable." Despite the obvious requirement that discharges into wetlands shall be avoided, approximately 16 of the 21 PDNs that we reviewed are clearly for non-water dependent activities that could take place on high ground, thus avoiding discharges into wetlands. To emphasize this fact, the following quoted work purposes were taken from copies of the PDNs received in this office:

1) Create upland for construction of retail/commercial facility. . . ;

2) To allow (convert) areas of wetlands to be used as lumber storage yard . . . ;

3) Construct multi-lane divided freeway . . . ;

4) Construction of a shopping mall and parking lot . . . ;

5) Raise elevation of land for use in distant future . . . ;

6) Construct a mobile home park . . . ;

7) For the operation and accessibility to an electric distribution substation. . . ;

8) Expanding a Mobile Home Park . . . ;

9) To use the property in the future for individual lots. . ;

10) To allow construction of a commercial or office development . . . ;

11) To allow construction of streets and houses . . . ;

12) Construction of road crossings, dams and golf course fairways . . . ;

13) To construct a public roadway to access lands released from U.S. Army Corps of Engineers jurisdiction. . . ; and,

14) To more efficiently use the property . . . .

Although we acknowledge that there is an inherent contradiction between Nationwide 26 which authorizes wetlands fill and the above cited management practices which declare that discharges into wetlands shall be avoided, it is apparent that the regulations do not provide carte blanche wetlands filling rights to any person who completes the necessary PDN paperwork. Yet, it appears that this is precisely what is taking place in North Carolina. Based on the information made available to us, the Wilmington written record clearly shows that no one has been refused authorization for any activity, avoidable or not, that is proposed to occur in wetlands identified in 33 CFR 330.5(a)(26)(i)(ii). This is an untenable situation in our opinion, since its effect is to exacerbate an already serious problem--that of national wetland loss which has been documented at 458,000 acres per year. The matter is even further complicated by the following example. In at least one case multiple applications of Nationwide 26 by a single property owner were used to obtain authorization of work in excess of that which would be normally allowable under the regulations. In another situation, Nationwide 26 was used to "authorize" a previously unauthorized action. In this latter situation, Nationwide 26 was used also as justification to negate mitigation requirements that were imposed on the alleged violator by the Corps in association with an issued after-the-fact Department of the Army permit.

We feel certain that there may be extenuating factors associated with some of the actions taken by the Wilmington District in accordance with Nationwide 26 and would welcome the opportunity to discuss them. Also, the Corps' perspective on compliance with the special conditions, particularly the wetlands avoidance requirements, is of particular interest to us. Because of our interest and responsibility in regard to wetlands protection and in maintaining records of the nature of wetland loss that are occurring in North Carolina, the written decisions of the Division Engineer are especially important to us and your assistance in obtaining a copy of each of these records would be appreciated.

In an effort to better understand the actions that the Corps has taken thus far in executing the provisions of Nationwide 26, your response to the following questions would be especially helpful to us and is requested.

1. In those situations where the authorized action is clearly non-water dependent (approximately 75 percent of the PDNs we received), how can Department of the Army authorization be granted in view of provisions in the regulations that explicitly require wetlands avoidance? In responding to this question, your interpretation of Sections 330.5(b)(14) and Sections 330.6(a)(1) and (5) is requested.

2. Using the application form developed by the Wilmington District, the applicant is required to determine whether discharges comply with management practices and to perform biological assessments that most laymen are not qualified to make. To what degree does the Wilmington District verify the responses of the applicant? Also, there are several cases where it appears that the management practices are being ignored or violated; thus, we request a copy of the specific justification for authorization for the following actions: SAW26-87-1, SAW26-87-4, SAW26-87-5, SAW26-87-6, SAW26-87-7, SAW26-87-9, SAW26-87-10, SAW26-87-11, SAW26-87-12, SAW26-87-13, SAW26-87-14, SAW26-87-15, SAW26-87-16, SAW26-88-1, SAW26-88-2, SAW26-88-3, SAW26-88-4, and SAW26-88-5.

3. In order to preclude occurrence of an adverse cumulative effect as is set forth in the regulations, an acreage figure is needed so that it can be determined when the insignificant-significant "wetland loss threshold" has been reached. At what cumulative impact point, in terms of acreage, does the Wilmington District intend to stop authorizing work in North Carolina under Nationwide 26? What are the criteria used by the Corps to establish this acreage threshold?

We are very interested in your response to the above-stated views and questions. However, we also believe that the best way to attain wetlands protection is to focus on needed change rather than on past differences or policies that have failed. In pursuit of these needed changes, I am proposing two modifications in the Corps' implementation of Nationwide 26. Obviously, strict implementation of these conditions will significantly alter the District's handling of Nationwide 26 and will greatly reduce wetland losses. The changes are:

- An individual permit will be required for any activity to be performed under authority of 33 CFR 330.5(a)(26) when the activity fails to comply, to the maximum extent practicable, with the management practices identified in 33 CFR 330.6.

- Activities that are clearly not water dependent, e.g. filling wetlands for creation of upland, will be considered under the normal public notice review process rather than under 33 CFR 330 Nationwide Permits.

As stated previously, I also would like to use this opportunity to discuss your use of 33 CFR 330.5(a)(14) or "Nationwide 14" which authorizes minor road crossing fills. Current practices by the Wilmington District allow multiple Nationwide 14 wetland fillings at several sites within a single project even though other wetland filling at the same site requires an individual Section 404 permit. A recent case in point is SAWC087-N-010-0245, North Carolina Department of Transportation, US 17 Bolivia Bypass for which 8 wetland crossings were authorized under Nationwide 14 and other portions of the work were authorized under an individual Department of the Army permit. We believe that the use of Nationwide 14 in this manner appears to violate provisions set forth in (33 CFR 330.5(a)(14) which require that such work be ". . . part of a single and complete project for crossing a non-tidal water body. . .". Clearly the "single and complete project" is not found at each wetland crossing when the proposed project involves more than one wetland crossing. Use of Nationwide 14 in this manner tends to result in piecemealing of a project thus obscuring total project impacts. This also could be viewed as misleading to the public because they do not have an opportunity to comment on the individual projects approved under Nationwide permits.

Jurisdictional wetland delineation issues aside, such use has misrepresented project-related wetland losses described in Public Notices: has hampered our mitigation efforts: and has precluded opportunity for equal consideration of fish and wildlife, as is required under the Fish and Wildlife Coordination Act. Unless we use alternative information sources in these situations, we are often unable to determine the magnitude of project-related impacts and mitigation needs.

To correct this situation, we recommend that you review the use of Nationwide 14 in the Wilmington District and that future use be in strict compliance with the regulations. Basically, this will preclude authorization under 33 CFR 330.5(a)(14) of multiple wetland crossings when the work is part of a single project.

In conclusion, I wish to express my desire to work with you in resolving the important issues raised in this letter. I am hopeful that they can be resolved in a manner which reflects the overall cooperative spirit which exists presently between our two offices. In our view of the importance and complexity of this matter, I suggest it would be advantageous for us to meet soon. I will call you in a few days to arrange the meeting and look forward to a successful resolution of these matters.

Sincerely yours,

LK Mike Gantt

L. K. (Mike) Gantt
Field Supervisor

EXHIBIT N

STATE OF KANSAS

Department of
Wildlife & Parks

Mike Hayden, *Governor*
Robert L. Meinen, *Secretary*
W. Alan Wentz, *Assistant Secretary*

Office Of The Secretary
900 Jackson Street, Suite 502
Topeka, Kansas 66612-1220
913-296-2281

Operations Office
Route 2, Box 54-A
Pratt, Kansas 67124-9599
316-672-5911

May 12, 1988
Ref:EE4.0300
Dickinson County

RECEIVED
MAY 20 1988
NWF WILDLIFE TEAM

M.D. Jewett
U.S. Army Corps of Engineers
Attn: CEMRK-OD-PP(2927)
700 Federal Building
Kansas City, MO 64106

Dear Mr. Jewett:

This letter is written in response to the public notice referenced above. It should be pointed out that a previous public notice (No. 2889) was issued a short time ago for another portion of the project. It is also of concern to us that the supposed mitigation area described in PN 2927 was in reality approved as part of a general permit a few years ago. Consequently, three permits are potentially to be approved for various aspects of the same project. It is our view that the U.S. Army Corps of Engineers is setting a precedent to allow piecemealing of projects in the permit review process. I suppose this helps to avoid possible public controversy on projects by giving the illusion that such are small separate projects of little consequence.

In our letter on PN 2889 dated March 28, 1988, we recommended that the entire project be put out on a new public notice. Now, with this notice we see again only a part of the project. We feel this clearly violates the intent of Section 404 of the Clean Water Act. In addition, because of this piecemealing and several other issues, the project itself is highly controversial. Considering such, why are we seeing a 17-day comment period on this project? Also the project involves wetland destruction and loss of natural resources in the floodplain. Should an EA or EIS be conducted to meet NEPA requirements, or are federal funds not being used on the project?

There are other potentially precedent setting actions associated with the project. The notice mentions 1.0 to 1.5 acres of wetlands were destroyed. Also 1.2 to 1.7 acres of wetlands will be filled by proposed work. The notice indicates that the Smoky Hill River bank will be excavated to replace filled wetlands. It should be definitely noted that the area "to be excavated" has already been excavated though not yet down to the engineers plans. It should also be noted that this area was covered with riparian vegetation composed of large trees and woodland. This was apparently approved under GP-6 some time ago and is not being done to mitigate wetland loss but to create a hydraulic opening for the bridge and prevent floodwater inundation of riparian areas. Additionally this action may well affect the hydraulics of the large oxbow upstream a short distance.

At an on-site meeting both the USFWS and KDWP indicated that they felt the area would not function as a wetland, but would be similar in nature to other denuded streambanks. If left alone it probably will grow up to willows and cottonwoods. However, it will in no way resemble the oxbow wetland component destroyed. Suitable sites exist to improve wetlands within the remaining oxbow, however, the Corps' representative indicated that this would be off-site mitigation. It's interesting to note the Corps has offered such scenarios in the past. In this case the oxbow we recommended renovating in part was a portion of the same oxbow that was filled. How can that be considered off-site?

There is no way that the Kansas Department of Wildlife and Parks will consider the hydraulic opening constructed which destroyed floodplain natural resources (riparian woodland) as mitigation for wetland fill. If the Corps contends that the riverbank is a wetland in the future and mitigates wetland loss; then we will take the position that all riparian woodlands on Kansas streams are wetlands and whenever a project results in denuding a streambank, such area must be fully mitigated with tree planting and O/M costs and efforts be included to ensure their establishment.

To date Kansas has probably lost 6 to 8% of its riparian resources due to activities covered in general permits. Such streambank pillaging undoubtedly releases phosphates and results in increased siltation. We feel 401 certification by KDHE of future general permits should not be approved because of the tremendous impacts we are seeing on our stream associated fish and wildlife resources.

Regarding this 404 permit public notice we strongly urge the U.S. Army Corps of Engineers not to accept a denuded streambank as wetland mitigation. The second growth willows in no way replace the large timber that was at the oxbow site as wildlife habitat. We also feel it is unethical to destroy floodplain resources and view it as mitigation. In summary, we recommend that:

1. the road alignment be moved at the upper end to allow the existence of the denuded oxbow

or

2. a wetland be created adjacent to the oxbow, and;
3. riparian replacement be made part of the 404 permit (to be a part of the permit whether 1 or 2 is chosen).

It should be stated that KDOT has a relatively good track record in past actions affecting stream resources. It is indeed unfortunate that this situation has arisen. However, the more important issues in this case are:

1. the Corps' permit piecemealing precedent to be set; and
2. the Corps' interpretation of what constitutes wetland replacement; and
3. the Corps' lack of enforcement of Section 404 of the Clean Water Act to prevent impacts from such activities on the public resources of water, fish, and wildlife.

If the Corps' does not protect fish and wildlife resources, it should be noted that no other agency has the necessary regulatory authority to do so in this instance. Thank you for allowing the opportunity to comment, for whatever it is worth.

Sincerely,

William G Layher

William G. Layher, Ph. D.
Supervisor
Environmental Services Section
Operations Office

bd
xc: USFWS, Finely, Manhattan
EPA, Barber, KC
DWR, Pope, Topeka
KDHE, Hess, Topeka
KWO, Harkins, Topeka
KDWP, Kivett, Topeka
NCRG, Concordia

EXHIBIT O

UNITED STATES GOVERNMENT
memorandum
U.S. FISH AND WILDLIFE SERVICE

ONE GATEWAY CENTER
SUITE 700
NEWTON CORNER, MASSACHUSETTS 02158

TO: Files

FROM: Mike Bartlett

DATE: JAN 15 1987

SUBJECT: Summary of January 6, 1987 MOA Meeting with North Atlantic Division Engineers - Russo Illegal

Attendees

General Charles Williams
John Smutz
Lenny Kotkiewicz
Ed Waslewski
Peter Puglese

Bill Ashe
Mike Bartlett
Shari Stevens

General Williams started the meeting by briefly describing his role in the process and by indicating that he was open to hearing our concerns.

Bill Ashe stated that the Service was concerned with the loss of over 50 acres of wetland habitat, particularly in view of the fact that the developers had filled the wetlands without Corps authorization.

General Williams questioned the value of the wetland habitat in the project area. Shari Stevens stated that the pond located in the area proposed for additional fill created enough habitat diversity to support a number of migratory bird and mammalian wildlife species.

Mike Bartlett expressed a concern that issuance of an after-the-fact permit for the work as proposed would be a signal to other developers to "fill first" and ask questions later. He emphasized that Russo had been warned in 1981 to stop filling wetlands on the site and that he had continued to do so. Shari gave the General copies of correspondence between the New York Corps and the State College Office reflecting the above. General Williams stated that he could not answer for possible lack of action on the Corps' part prior to his coming to NAD. Bill Ashe pointed out that while General Williams could not beheld responsible for events prior to his appointment as Division Engineer, the decision to allow additional fill was up to the General. Bartlett stated that he felt that the economic argument in the District's Finding of Fact, was illogical (Russo bought 13.5 acres of wetlands for $4,000,000 - after receiving a Corps cease and desist order for filling part of the parcel. Instead of expressing concern over the action, the District Engineer argued that the permit should be issued because Russo would otherwise lose part of his $4,000,000 investment).

The General concluded the meeting by indicating that he was not now in a position to change the decision of the District Engineer to issue the permit. He indicated that he would be in such a position when (and if) the Assistant Secretary-Civil Works referred the matter to him for review.

BRIEFING STATEMENT

Prepared for: Assistant Director (FWE) STATE: New Jersey
Submitted: February 12, 1987
Updated: April 13, 1987

ISSUE:

Proposed issuance of Section 404 permit to authorize 52.5 acres of illegal fill for which, despite reports of illegal activity over a period of several years, the district failed to exert enforcement authority. The District Engineer now intends to authorize the existing violation and allow placement of fill on an additional 5 acres of wetlands, all with insufficient compensation. Issuance of this permit could undermine the effectiveness of the 404 Program in protecting wetlands from unauthorized development by setting the precedent of authorizing illegal fill with inadequate compensation.

STATUS:

- o Russo Development Corp. has filled 52.5 acres of wetlands in the Hackensack Meadowlands, Bergen County, NJ, without prior Corps (NY District) authorization.
- o PN dated August 28, 1985 for after-the-fact application to authorize the existing 52.5 acre fill and request for permit to fill additional 5 acres of wetlands.
- o Notice of Intent to Issue presented by the District Engineer states decision to authorize existing violation, and further allow the placement of an additional 5 acres of fill material, based primarily on economic factors relating to the presence of the illegal fill. Compensation proposed is on a 0.5:1 basis.
- o In accordance with the 1985 MOA between Army and Interior, the Acting Regional Director, FWS, met with Division Engineer, North Atlantic Division in an attempt to reconcile differences. No resolution was attained.
- o Acting Regional Director, FWS, has requested higher level review of the District Engineer's decision.

DEPARTMENT POSITION:

- o The Department, through FWS, initially recommended a minimum of 1:1 compensation for the lost habitat value. Applicant's refusal to comply prompted FWS correspondence to the District stating that the mitigation as proposed was inadequate, and advising them of revised position.

- Current FWS position is that 1:1 compensation is required for the 44 acre parcel, removal and restoration for the 8.5 acre parcel and denial for the additional 5 acre fill.

- Compromise offered by FWS was for 1:1 compensation for all existing fill, but no further filling.

o The permit issue is in the elevation process. Issue forwarded to Washington Offices via Regional Office on April 9, 1987.

POSITION OF MAJOR CONSTITUENCIES:

o EPA recommended 2:1 compensation for the 44 acre fill, removal and restoration of the 8.5 acre fill and denial of additional fill. EPA is elevating under 404(q).

o NMFS recommended 1:1 compensation for the 44 acre fill, removal and restoration of the 8.5 acre fill and denial of additional fill. NMFS is not elevating.

o New Jersey Department of Environmental Protection issued a statement on December 28, 1985 concurring with FWS assessment that compensation offered was inadequate and waiving right to issue a Water Quality Certificate for the project.

ISSUE BACKGROUND:

o FWS reported filling in progress in 1981. District notified FWS filling activity is a violation and that the owner had been directed to cease work. District did not follow-up. Despite FWS prompt in 1984, filling continued until 1985 when cease and desist order was finally issued. District Engineer's decision is to authorize illegal work plus an additional 5 acres of fill.

o Facilities have already been completed on the 44 acre fill. 8.5 acres of fill are presently unoccupied. Remaining 5 acres supports open water/marsh habitat.

o Since the activity was performed illegally, alternatives to avoid or minimize adverse impacts were not considered.

o District decision to issue permit appears to encourage illegal activity since presence of violation influences the District Engineer's public interest determination.

PROGRAM CONTACT: Clifford G. Day
Division of Ecological Services
U.S. Fish and Wildlife Service
Office: FTS 343-8814

Mr. Oberstar. Our next panel, we appreciate their patience, Mr. John Doyle, Assistant Secretary of the Army for Civil Works; and Ms. Rebecca Hanmer, Acting Assistant Administrator, Office of Water, U.S. EPA.

Would you identify your associates?

Ms. Hanmer. This is David Davis, Director of the Office of Wetlands Protection in EPA.

Mr. Oberstar. Thank you.

Mr. Doyle. Mr. Chairman, on my immediate left is Dave Barrows, our Assistant for Regulatory Programs in the Office of the Assistant Secretary. To his left is Mr. Bernie Goode, Chief of the Regulatory Branch Headquarters, U.S. Army Corps of Engineers.

Mr. Oberstar. Thank you. Welcome.

[Witnesses sworn.]

Mr. Oberstar. As a previous member of the professional staff of this full Committee on Public Works, Mr. Doyle, I know you fully understand the interruptions—unforeseen, unpredicted, and unscheduled—of votes on the House floor that compel our presence away from here and unpredictably prolong the hearing.

Ms. Hanmer, as a frequent witness before congressional committees, I know that you understand the same thing.

Again, the Chair begs your indulgence for all the interruptions that have prolonged beyond the original foreseen time for your presentation today.

We eagerly await your testimony. I know that either you or your surrogates have heard previous testimony. You may feel free to comment on any of the salient points that have been raised prior to your participation here.

Let's begin with Mr. Doyle.

TESTIMONY OF JOHN S. DOYLE, JR., PRINCIPAL DEPUTY ASSISTANT SECRETARY OF THE ARMY (CIVIL WORKS), ACCOMPANIED BY DAVID B. BARROWS, ASSISTANT FOR REGULATORY PROGRAMS, OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY (CIVIL WORKS); AND BERNARD N. GOODE, CHIEF, REGULATORY PROGRAM, HEADQUARTERS U.S. ARMY CORPS OF ENGINEERS

Mr. Doyle. Thank you, Mr. Chairman.

I have a formal, more complete statement that I ask be included in the record and with your concurrence, Mr. Chairman, I will summarize my statement at this time.

Mr. Oberstar. Without objection, it will be included in the record.

Mr. Doyle. I have introduced my colleagues, Messrs. Dave Barrows and Bernie Goode, two of our program specialists. The three of us are pleased to be here to discuss the GAO report, which is the subject of this hearing.

In your letter of invitation, you asked that I address five things. First, the specific report entitled: "Wetlands: The Corps of Engineers Administration of the Section 404 Program."

Second, our enforcement policy for the regulatory program, including the roles of the headquarters, division, and district offices.

Third, the Department of Army view on major policy differences with the Federal "resource" agencies.

Fourth, our understanding of its congressional mandate under Section 404 of the Clean Water Act in general, and

Fifth, any insights we could provide into the ways in which the program can be improved to further the Clean Water Act's goals.

With your permission sir, I will now go into each of these in summary fashion.

Mr. **Oberstar**. Please proceed.

Mr. **Doyle**. First, I would like to emphasize that my comments both oral this afternoon and as reflected in the written statement, are based on the draft GAO report. We had not seen the final report prior to this hearing.

Second my comments on the report and items that are contained in it and our overall view on the report are made with respect to its assessment of our Agency's performance. We do not intend to comment in any way on GAO's assessment of other agencies.

Overall, with those two caveats, we would characterize the draft GAO report as factually accurate, particularly with respect to our program and our implementation. We did find it somewhat incomplete in its discussions of the underlying causes or reasons for its findings.

In addition, we believe that some of the report's recommendations would not effectively remedy the problem identified and referred to in those recommendations. Some recommendations also fail to recognize existing and past initiatives of a similar nature which have already been undertaken by the Federal agencies.

I am told, with respect to that last comment, that the final report—based on the very quick review that we had an opportunity to do before this testimony began—may have corrected much of the draft report's shortcomings.

The report correctly recognizes that the Corps does not have the authority to regulate the majority of the activities causing wetlands losses throughout this Nation. However, it then concludes that the Corps is not doing all that is possible to protect wetlands under existing authorities based on other agencies' criticisms of the Corps program management.

[Buzzer sounds.]

Mr. **Oberstar**. Please proceed through your opening remarks.

Mr. **Doyle**. Mr. Chairman, I even remember what that means. [Laughter.]

Mr. **Doyle**. The report recommends that the Corps be directed to develop baseline information which would "enable the Corps to determine the extent of the Section 404 program's impact on wetlands."

Further, the report recommends that the Corps coordinate and consult with other Federal agencies to develop consistent and workable procedures for: one, considering practicable alternatives to filling wetlands; two, delineating wetlands; and three, allowing the agencies more appeal rights concerning individual permit decisions. Finally, the report recommends that the Corps work with EPA to improve the Section 404 enforcement program. I would like to discuss each of these recommendations in order.

The GAO report recommends a baseline of information to determine the effectiveness of the 404 program. We are not convinced that a useful baseline to determine the effectiveness of the 404 program could reasonably be developed. Such a study would have to include a wide variety of factors that are very difficult to describe and measure.

An example of one such factor is the deterrent effect of the permit denial, or stated another way, whether the denial of one permit will result in other applications never being submitted for evaluation. Another factor is the deterrent effect of enforcement activities. Because such effects cannot be easily quantified, estimates of acreage saved or protected would be significantly less reliable.

Simply deciding which wetlands should be included in a baseline study would require the agreement of all the Federal resource agencies on an accurate definition of "wetlands," an agreement, I might add, that may be difficult to reach since there is clearly a difference between wetland methodology for purposes of inventory as compared to purposes for regulation.

In addition, the detail needed to account for each Agency's unique assumptions and definitions would add significantly to the cost and complexities of a baseline study.

The second recommendation presented by the GAO report was to require the Corps to increase coordination with the Federal resource agencies to develop procedures for considering practicable alternatives and delineation of wetlands and to provide the agencies with more appeal rights.

First let me discuss the issue of an appeal for permit decisions and defer the other two items for later in my statement.

We believe that Federal resource agencies already play an active role in the regulatory process and are afforded many opportunities to express their views and to ensure those views receive full consideration. As the GAO report found, the Corps uses a variety of techniques to effect pre-application coordination with other Federal agencies. The resource agencies also have the option to seek elevation of a permit decision through the provisions of the Memoranda of Agreements, which have been developed under Section 404(q) of the Clean Water Act. The Environmental Protection Agency has the additional option to veto Corps permit decision through section 404(c) authority.

It has been our experience in some cases that increasing the coordination and oversight roles of the resource agencies adds duplication and paperwork without appreciable benefits to the quality of individual permit decisions. While we welcome resource agency comments to insure permitting decisions are environmentally sensitive, we must guard against adding unnecessary procedures that would only encumber the decisionmaking process.

With respect to the agency policy differences in the program, the GAO report recommends we develop consistent and workable procedures for handling these issues. We agree and would note that over the years the agencies have been successful in resolving many differences encountered in this program.

In a program as technically oriented, geographically diverse, and socially complex as that required under Section 404, it is inevitable—and I am sure the committee knows this very well—that Army and the resource agencies will continue to have some differences, particularly in light of the congressional design to include agencies with different charters to provide checks and balances to the Section 404 program. Three policy differences are highlighted as problems in the GAO report; jurisdiction, mitigation, and consideration of alternatives.

With respect to jurisdiction, EPA has the ultimate authority to determine the extent of jurisdiction of the Clean Water Act. There is no disagreement on that point. In 1980, the EPA entered into a Memorandum of Understanding with the Corps which provided that the Corps would continue to make jurisdictional calls in all areas except those designated by EPA as "special cases."

At this time, the Corps, EPA, Fish and Wildlife Service, National Marine Fisheries Service, and the Soil Conservation Service are each developing methods for conducting wetlands reviews under the authority of differing legislation. To further complicate matters, the States have about as many different definitions of wetlands as there are States. The jurisdictional determination issue is by no means a simple one, although which agency has ultimate authority to make those calls under the act is not in question.

Mitigation policy involves two questions: when do you mitigate and how do you mitigate? We believe the best approach to mitigation is to allow applicants to develop and include mitigation as part of the project planning efforts for the permit application. This allows an early recognition of the public and private needs and benefits of the proposal, the quality of the wetland being impacted, and the quality of the mitigation being proposed. When deciding how to mitigate for wetland impacts, we believe wetland protection, restoration, and creation are all valid options and should be considered.

One of the most difficult issues affecting the evaluation of permit applications to fill wetlands is the consideration of practicable alternatives. Currently, the three most debated aspects of this issue are: first, how far back in time must one look to identify available alternatives? Second, what constitutes a reasonably available alternative? Third, can mitigation be used to reduce the impacts of an alternative to a level where it becomes the least environmentally damaging alternative?

These matters are still not resolved, but we have made progress towards clarifying them and continue to work towards a mutual agreement. In our view, in order for an alternative to be practicable it must be reasonably available to the applicant at the time of the permit application and mitigation can be used to reduce the impacts of the applicants preferred alternative.

Mr. Chairman, I can go into a discussion of the enforcement, or maybe this would be a good time, in light of the second bells to break.

Mr. **Oberstar**. I was going to suggest that. I was just looking at the outline of your statement. I think this is a good point to break. We have a vote in progress. We will resume as quickly as possible after this vote.

[Recess.]

Mr. **Oberstar**. The subcommittee will resume this hearing.

Mr. Doyle, would you please resume at the point we broke.

Mr. DOYLE. I would be pleased to, Mr. Chairman.

The committee also requested a detailed discussion of the Corps enforcement policy.

The GAO report recommends that the Corps coordinate with EPA to improve enforcement for Section 404. Corps enforcement practice has developed around a central policy, we believe, of "even-handedness." The Corps has traditionally sought enforcement through voluntary compliance, administrative action, which includes after-the-fact permitting and judicial enforcement seeking restoration, and civil/criminal penalties. The focus of our enforcement policy has been to first seek rehabilitation of the environment rather than just extracting penalties for the sake of punishment.

When Section 404 was added in 1972 to the Corps regulatory program, EPA, not the Corps, was given explicit authority to enforce against unpermitted discharges. We are working with EPA to complete a Memorandum of Agreement which will make better use of each agency's enforcement authorities and resources. We expect that effort to be completed soon.

Enforcement actions, like other regulatory actions, are primarily the responsibility of the Corps District Engineer and his staff. The Division office is available for consultation and guidance on implementation of the program and on individual cases. No active enforcement role has been assigned to division offices of the Corps. The Headquarters office prepares the basic administrative regulations describing the procedures and rules to be followed and is also available for support, consultation, and guidance concerning both programmatic and case specific implementation.

That statement leads me to the discussion of the Corps view of its mandates under Section 404 in the Clean Water Act. Under Section 404, the Corps has two basic responsibilities:

First, to evaluate permit applications for the discharge of dredged or fill material into the waters of the United States at specified disposal sites and to decide whether to issue or deny permits, after providing notice and opportunity for public hearings.

Second, to insure compliance with Corps-issued permits, which may include issuing an order requiring compliance, seeking one of two classes of administrative penalties, or bringing a civil or criminal action for appropriate relief.

With respect to the Clean Water Act in general, the Corps has the responsibility to further the objective of the Act to restore and maintain the integrity of the Nation's waters by implementing a program that serves the public interest. The Corps has gone to great lengths to do this by operating an effective and efficient program.

In conclusion, Mr. Chairman, we believe that over time the 404 program has benefited from a streamlining of its management practices and an improvement in its environmental sensitivity. The program employs a highly skilled professional staff. Their ability to understand the complex issues involved in evaluating permit applications has markedly improved the quality of permit decisions.

The financial and personnel resources allotted to the implementation of the program have been limited in the past. Until recently, we had been unsuccessful in persuading Congress to accept the President's proposal to increase those resources. Current resources are stretched to the limit because the workload continues to increase. In response we are further prioritizing the work so that we focus on the most important items.

Our experiences over the last 16 years have taught us that the regulatory program which Congress created under Section 404 was designed to strike the proper balance among many legitimate competing interests, rather than to maximize decisionmaking efficiency. Such a program, which divides policymaking, decisionmaking, and implementation between two Federal agencies is bound to experience differences in viewpoints as issues are identified and resolved over time. I believe the Corps and EPA have made a great deal of progress in working together to resolve these issues in a way that best serves the public interest.

We have additional issues to address. We are committed to exerting our best efforts to resolve those issues in a way that restores and maintains the Nation's water quality, while at the same time recognizing that other essential public interest objectives relating to private property, energy, transportation, economic, and constitutional values must also be protected.

This concludes my statement, Mr. Chairman. I'll be glad to respond to any questions that you or members of the committee have.

Mr. **Oberstar.** I want to commend you for that summary in very succinct fashion of a very large and complex subject, including that very extensive report of GAO. I might say that it does not vary in any significant way from the draft that you and I both reviewed earlier. I want to thank you for summarizing it.

Mr. **Doyle.** Thank you for those comments, sir.

Mr. **Oberstar.** Ms. Hanmer, please?

Pull the microphone up close there so that we can get your every word.

TESTIMONY OF REBECCA HANMER, ACTING ASSISTANT ADMINISTRATOR FOR WATER, U.S. ENVIRONMENTAL PROTECTION AGENCY, ACCOMPANIED BY DAVID G. DAVIS, DIRECTOR, OFFICE OF WETLANDS PROTECTION

Ms. **Hanmer.** Thank you.

Good afternoon, Mr. Chairman. Can you hear me okay?

Mr. **Oberstar.** Yes. Speak up just a little more.

Ms. **Hanmer.** All right.

I am Rebecca Hanmer, Acting Assistant Administrator for Water, in the U.S. Environmental Protection Agency. In one job or another in the U.S. EPA over the last 18 years, I have worked with the 404 program in several different respects.

I am here today at your request to discuss the recent GAO report, and also to discuss any issues that you or other members of the committee would like to raise with us on our administration of the 404 program or other issues that we have been discussing.

As indicated, I have with me David Davis, who is the Director of our Office of Wetlands Protection. This was an office that we created in October of 1986 in order to beef up our wetlands protection activities.

The prepared statement I am submitting for the record with your permission. Because of the fact that we received the final GAO report yesterday, I will update my remarks a bit and summarize them.

Mr. **Oberstar**. That would be perfectly acceptable and understandable.

Would you also submit for the committee record any documentation accompanying the establishment of that new Office of Wetlands? I think it would be very helpful to have a complete file on wetlands issues.

Ms. **Hanmer**. Certainly. We will be glad to do that. Thank you. (See page 418.)

Ms. **Hanmer**. Before I discuss the GAO report itself, I think it's important briefly to review EPA's responsibilities under 404 as we see them, especially considering the interrelationship with the Corps of Engineers in the implementation of this program. Some of what I say will be repetitive. But it should help to place our specific comments on the policy issues and other facets of the 404 program in an appropriate context.

The Section 404 permit program regulates discharges of dredged or fill material into "waters of the United States," a phrase which includes most of the Nation's wetlands. "Waters of the United States" are defined for Section 404 in the same manner as they are defined for other programs under the Clean Water Act, including the Section 402 discharge permit program. As Mr. Doyle has indicated, EPA has the final call on what constitutes a water of the United States under the Clean Water Act.

Generally, however, as the permit program is administered by the Department of the Army acting through the Corps of Engineers, in practice, the Corps makes most of the jurisdictional calls in the field. The Corps is given the responsibility under the act to coordinate the review of permit applications and, based on this review, to decide whether a particular permit should be issued.

The act requires that in making this decision, the Corps apply the environmental criteria contained in the Section 404(b)(1) Guidelines, which are regulations developed and promulgated by EPA in conjunction with the Department of the Army.

During the permit review process, EPA provides comments to the Corps that focus on EPA's evaluation of project compliance with the Guidelines. The Corps considers EPA's comments in conjunction with its own evaluation, which includes its application of the 404(b)(1) Guidelines as well. It also considers the comments of other agencies and the public in reaching a permit decision.

In those instances where disagreements on a project develop between EPA and the Corps, the decision to issue the permit may be elevated to the Assistant Secretary of the Army under the terms of a Memorandum of Agreement pursuant to Section 404(q). That Memorandum of Agreement was revised in 1985. It is the 1985 agreement that we are presently operating under.

EPA also has the final authority under Section 404(c) to restrict or prohibit the use of a site for the discharge of dredged or fill material after making a determination that such discharge could result in unacceptable adverse values to certain resource values that are defined in the statute.

In addition to evaluating permit applications—as the GAO report stresses—a major component of the 404 program is enforcement. Both EPA and the Corps are involved in detecting and proceeding against unauthorized activities and violations of permit conditions. Resolution of enforcement cases may be accomplished through restoration, administrative penalties, or civil or criminal court action.

While Section 404 regulates discharges of dredged or fill material into all waters of the United States, as covered by the statute, it is its role in the protection of wetlands which has engendered the most controversy. This is because decisions on the use of wetlands often involve competition among important values—growth and economic progress, the rights of private property ownership, and the desire for clean and biologically productive waters.

EPA strives to protect wetlands within the statutory requirements of the Clean Water Act while making decisions which accommodate economic and other interests to the extent we can, consistent with our environmental mandates. However, the overriding principle for us is the statutory goal of protecting the physical, chemical, and biological integrity of waters of the U.S. Specifically, we have included the goal of no-net-loss of wetlands in our operating guidance for our field people.

EPA has made protection of the wetlands an important Agency priority and recognition of their contribution to the quality of the environment.

As discussed in the GAO report, our wetlands resources have been greatly reduced and continue to disappear despite our efforts. Significant losses of some types of wetlands, bottomland hardwoods in the lower Mississippi valley and prairie potholes in the upper midwest in particular, present major problems for waterfowl and wildlife populations.

At this time, I would like to direct comments to specific elements in the GAO report which we feel should be stressed.

The first is the 404(b)(1) Guidelines and their place in the program. The cornerstone of the Section 404 program in terms of environmental protection is the 404(b)(1) Guidelines. The fundamental precepts of these Guidelines, as promulgated by EPA in 1980, are that dredged or fill material should not be discharged into the aquatic ecosystem unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact either alone or when viewed in terms of its cumulative impact on wetlands or other waters; and there are no less environmentally damaging practical alternatives.

The Guidelines further require that no discharge should be permitted unless appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem.

As I have indicated, the Guidelines are regulatory in nature and establish an environmental basis for permit review and, if necessary, permit denial. Our principal concern with the GAO report was that it touched, we felt, pretty lightly upon this central element. This bears on the subject of the policy differences that are alluded to in the GAO report and which have been discussed by earlier witnesses today on mitigation and the definition of practicable alternatives, for example.

GAO's recommendations that the agencies "work" to resolve the Guidelines-related policy issues may not result in significant benefits in terms of wetlands protection without a clearer recognition of EPA's authority and responsibility to interpret the guidelines. Many hours have been invested by both the Corps and EPA in discussing issues such as mitigation and practicable alternatives. While progress has been made in some important areas, other significant issues do remain unresolved.

As I said, a clear recognition or definition of EPA's authority and responsibility to interpret the Guidelines would probably assist in resolving these longstanding issues.

On the other hand, an example of an area where notable progress has been made was cited by Mr. Doyle. It is an extremely fundamental area. That is a joint wetlands delineation methodology, which we are moving towards quite rapidly.

I fully agree with the GAO report on enforcement. A strong enforcement program is a vital component of an effective 404 program. EPA admits that the 404 enforcement program has generally been inadequate in the past.

Under Section 309 of the Clean Water Act, EPA has authority to act against persons discharging dredged or fill material without a Corps or State-issued 404 permit, and to enforce against violations of State-issued permits.

EPA also has authority to enforce against the violation of Corps-issued permits. However, given the Corps' much larger field presence, and since it is the permitting authority, not EPA, the EPA regions in practice have utilized their limited resources to identify and take action against selected, unauthorized discharges with the Corps taking the lead on enforcing against noncompliance with the terms of Corps-issued 404 permits. Even with unauthorized discharges, EPA regions have generally requested Corps enforcement action.

We took a look at our whole wetlands program a few years ago and have been strengthening it for the last three years. With respect to enforcement, EPA has dramatically increased its admittedly limited 404 enforcement efforts over the past few years.

Beginning in fiscal year 1985, enforcement objectives have been included in the Agency's annual Operating Guidance. The EPA regions are required to report quarterly regarding their enforcement activities. We have worked to provide better guidance and training to our Regional enforcement staff.

As I mentioned earlier, in 1986 we created a separate office to deal with wetlands protection, and generally upgraded all of our wetlands protection efforts, including enforcement.

So far in fiscal year 1988 our Regions have issued 79 administrative orders, according to my information, and 15 administrative penalty orders. Seven civil referrals have been made to the Department of Justice. Again, while this is a small program by EPA enforcement standards, it is a growing program and has the full support of the Administrator.

One of the major difficulties in the overall Clean Water Act enforcement program—which we discussed with the committee at the time the Water Quality Act was being addressed—was the lack of administrative penalty authority. Congress recognized this, and in the 1987 Water Quality Act, gave EPA authority under Section 309(g) to assess administrative civil penalties for Section 404 violations, along with similar authority under Section 402. EPA has been able to make significant progress using its new administrative penalty authority since GAO collected the data for its report.

Also, in an effort to better utilize the resources of both agencies, as Mr. Doyle noted, EPA and the Army have substantially completed a Memorandum of Agreement on enforcement that essentially divides their efforts and makes the best use of both agencies' capabilities.

It is important to note that most enforcement actions are extremely time and resource intensive. Any comprehensive surveillance program, as recommended by GAO, will be both difficult and highly resource intensive. Thus, any significant increase in enforcement activity would almost inevitably result in a decrease in some of our other program activities without additional resources. At the same time, improving the enforcement program will continue to be a very high priority for both EPA and the Corps. We will continue our activities together.

Implementation of the new Enforcement Memorandum of Agreement should help significantly. Improving performance in the areas of surveillance and compliance inspections, and the production of quality, well-documented decisions should become an overall 404 program priority. We are committed to this in the upcoming fiscal year.

My final concern, Mr. Chairman, is something that the GAO report did not really focus on, though we raised it in our comments. It is the fundamental importance of developing strong, State wetlands protection programs to underlie and reinforce the Federal efforts.

Regardless of what we do at the Federal level with the 404 program, I do not believe we can succeed without much stronger State responsibility and presence. Developing viable State programs is a major EPA emphasis and one of the major roles of our new Office of Wetlands Protection. We believe that this issue deserves discussion in any forum which is seeking ways to make the Federal 404 program work more effectively.

In conclusion, these are the important points that I would like to leave you with. Wetlands protection is important to EPA. It is important within our overall Agency priorities. It is a fundamental environmental protection goal.

The Corps and EPA can and do work together. While the record over the last sixteen years is mixed, there are many examples of success. A common understanding of the statute—that the 404(b)(1) Guidelines are the basic standard for judging permit applications and that permits will not be issued that do not meet the Guidelines except under the statutory exception already granted—is essential.

As part of this, clarification that EPA is the final Agency authority to interpret the Guidelines, after appropriate consultation with the Secretary of the Army as well as the Federal resource agencies, would substantially resolve the remaining policy issues.

Both EPA and the Army are committed to improving enforcement in the 404 program. The new administrative penalty authority and Memorandum of Agreement are especially welcome in this regard.

Finally, Federal administration of the 404 program, no matter how well coordinated, no matter how many people we have, cannot be fully effective unless the States implement strong, wetlands protection programs. This, in our judgment, is the most important unfinished agenda item. It should be addressed by the committee along with its review of the GAO recommendations.

I thank you for the opportunity to represent EPA at this hearing. I appreciate the focus of the GAO report and the committee on this important program. At that point, I conclude my statement and am prepared to answer any questions you would like to have me address.

Mr. **Oberstar**. Thank you very much for a very comprehensive review and for your strong support for the wetlands program. It certainly comes across clearly in your remarks.

My compliments also on the initiative taken at EPA to establish an Office of Wetlands. I think that is a very commendable initiative and one that should prove very important. We will want to follow your developments and future actions very, very closely.

I would also ask both agencies, EPA and the Corps, acting through the Assistant Secretary, to submit to the committee—when you have concluded the Memorandum of Agreement on enforcement—the document that results from these discussions. I think we would want to look at that.

As I mentioned to the resource agencies earlier today, when they have concluded their various actions concerning the definition of wetlands, policy clarification within the agencies on this matter, and a common agreement on mitigation—when they have concluded their work and you have concluded the Memorandum of Agreement on enforcement—we will want to review that milestone and measure it against past actions and what we might expect in the future.

Mr. **Doyle**. We would be happy to sir.

[The following was received from Mr. Doyle:]

The Memorandum of Agreement on enforcement is not available at the present time. After both agencies have approved it, it will be submitted to the Committee.

Mr. **Oberstar**. I would like to get your evaluation, Mr. Secretary, of the level of commitment on the part of the Corps of Engineers to the 404 program.

I characterize the attitude—which I think is an important matter. It is an intangible; I recognize it. But I have the feeling that of all the activities the Corps of Engineers is saddled with and responsibilities that it carries, that it has looked upon this wetlands program as largely a burden, a nuisance, and one that it didn't carry out with a real sense of mission, as it has with all the other historical and traditional missions of the Corps of Engineers.

I don't think I am being unfair or that I am being harsh. I speak as a person who is a great admirer of the Corps and a defender of the Corps on numerous occasions when they have been unfairly attacked. In this respect, however, I do not sense a real dedication to and commitment to implementing this program with the zeal that I think it deserves.

Mr. **Doyle**. Mr. Chairman, I would be pleased to respond to your comment.

I am disappointed that you feel that way because I know how strong a supporter of the Corps that you have been over the years. I know that you are speaking honestly and forthrightly when you describe your perceptions.

From my perspective, your perceptions are not correct. I believe that the Corps takes extremely seriously its 404 program implementation responsibilities. The Corps clearly takes those responsibilities as strongly as it does any other portion of its programmatic responsibilities.

The criticism of the Corps over its implementation of the Section 404 program has been a source of frustration for me. Over the last ten years during my time on the committee and now in my current position, I have felt that the Corps, because of the Congressional design to include agencies with different charters to provide checks and balances to the Section 404 program, finds itself oftentimes being unfairly criticized for programmatic problems. It is a damned if you do, and damned if you don't situation.

I have received as many complaints from people who advocate that the Corps is not implementing the program in an environmentally strict enough fashion as I have from people who argue exactly the opposite, that the Corps is being too environmentally strict. I think, if I heard some of the discussion prior to our testimony, you may have gotten a sense of that phenomenon in other witnesses' comments and in some of the Members' comments.

It is a difficult task to reach agreement, particularly in a program structured like Section 404, with responsibility for program implementation divided among agencies. That is why both Ms. Hanmer and I come to the same conclusion. With a program of that sort, inevitably there are going to be disagreements.

I am convinced that the Corps is doing a very committed job to implementing this program. That is not to say that we are doing it perfectly. There are areas that I think we may be able to do even better. As long as I have anything to say about it, we will continue to try to improve.

Mr. **Oberstar**. Well, I think developments in recent months indicate a movement in the direction of doing the job better.

I am heartened by the testimony I heard from the Fish and Wildlife Service and from NOAA about the interagency cooperation on matters that are their responsibility: defining wetlands, policy clarification, implementation, interagency coordination, and cooperation, joining with the Corps more directly in defining this mission, and not engaging in the sort of bureaucratic passing of the buck.

Let me also turn to EPA. The GAO report indicates that no criminal action—well, they summarize enforcement by saying EPA has used its enforcement authority sparingly. That is an understatement.

No criminal action had been filed. Maybe there aren't any criminals, I don't know. I have not investigated the program as thoroughly perhaps as I would like to. I certainly would like to know why there has not been any criminal action filed. Maybe there aren't any. Maybe none of the actions or violations fall under that criminal category. There ought to be some explanation for it.

There were only two monetary fines, six civil actions, no permit revocations and, on the Corps side, only 16 suspensions in 5 Districts for failure to perform according to the permit.

Now we know there are numerous violations of permits. We know that there are problems out there. It has been documented. Yet these enforcement actions simply haven't been taken. That indicates to me a lack of resolve. Maybe now as a result of the GAO inquiry, the resolve has been stiffened. There is going to be a new look. But I would like your response to those findings on the part of GAO. Ms. Hanmer?

Ms. HANMER. We can certainly provide you information for the record that shows you the enforcement actions of various kinds that we have taken over the last three years. We have not taken many criminal actions, but we have taken some: one in fiscal year 1986, three in fiscal year 1987, and two in fiscal year 1988.

Mr. OBERSTAR. That did not appear in the GAO report. I appreciate having clarification.

Ms. HANMER. We will be happy to provide full information from our enforcement statistics.

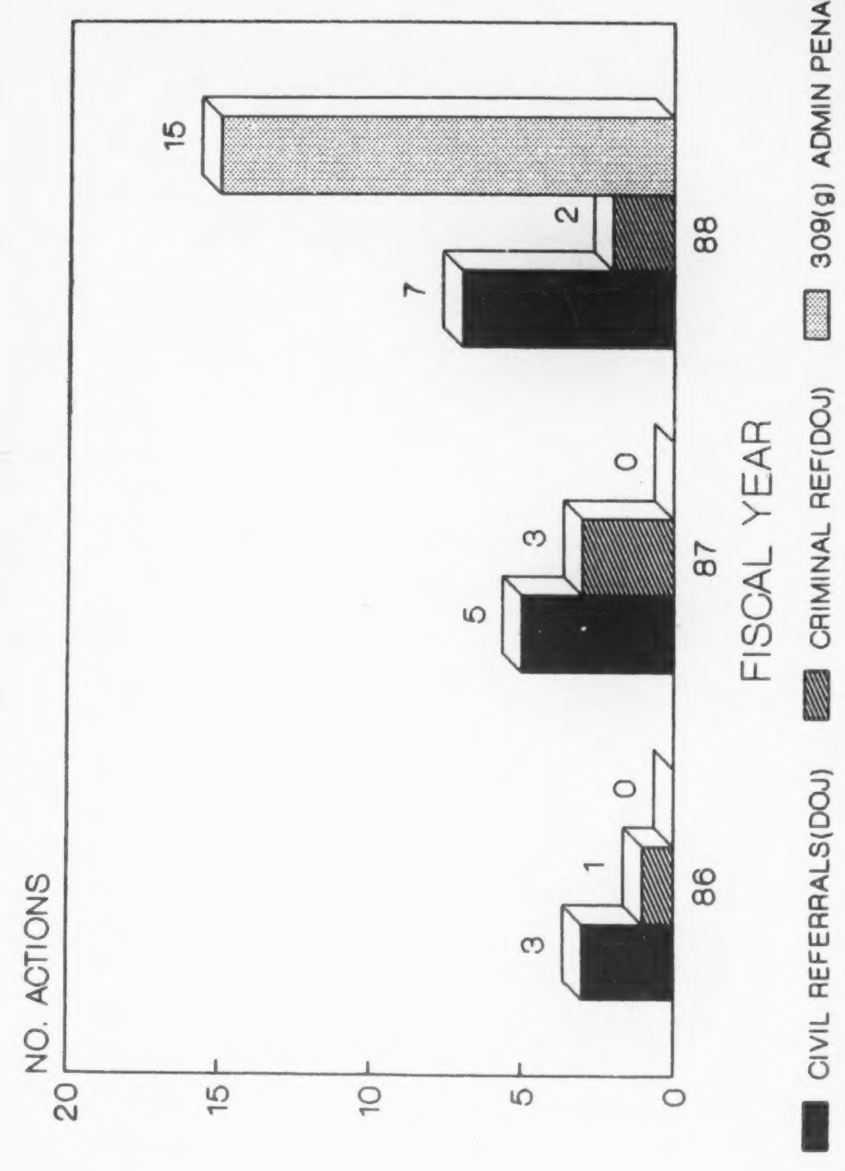
The new administrative penalty authority came to us in February of 1987 with the Water Quality Act. That was a very, very significant problem in the Agency under the Clean Water Act. Lacking this authority meant we could only get fines by going to court, which is an extremely time consuming way to enforce.

Under the new authority, we issued guidance late last summer. We have begun to issue administrative penalty orders in the 404 program. At this point, we have issued 15 under this new authority. We have actually received over $100,000 in cash. We have a number of penalty actions that are currently underway.

Mr. OBERSTAR. Thank you for that clarification. We would appreciate the additional documentation.

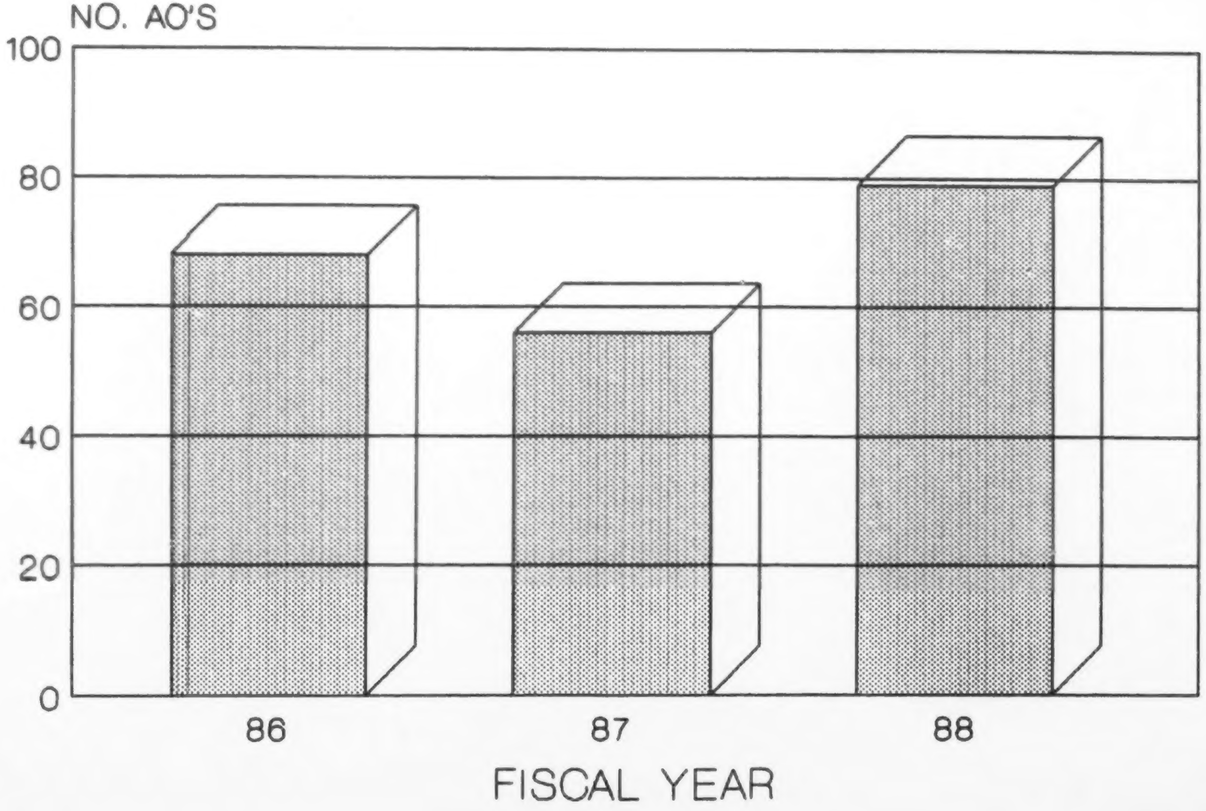
[The following were received from Ms. Hanmer:]

EPA SECTION 404 CWA ENFORCEMENT DATA
FY 1986 - 1988



EPA SECTION 404 CWA ENFORCEMENT DATA

SECTION 309(a) ADMINISTRATIVE ORDERS



ENFORCEMENT DATA

Section 309(a) Administrative Orders

EPA REGION

	1	2	3	4	5	6	7	8	9	10	Total
FY86	3	2	31	0	0	0	1	3	6	22	68
FY87	7	4	16	7	6	1	1	2	4	8	56
FY88	3	4	23	8	19	6	0	8	3	5	79
Totals	13	10	70	15	25	7	2	13	13	35	203

Section 309(g) Administrative Penalty Complaints

EPA REGION

	1	2	3	4	5	6	7	8	9	10	Total
FY88 Class I	2	0	1	0	1	4	0	0	0	0	8
FY88 Class II	0	0	1	0	5	1	0	0	0	0	7
Totals	2	0	2	0	6	5	0	0	0	0	15

Referrals to Department of Justice

	EPA REGION										
	1	2	3	4	5	6	7	8	9	10	Total
Civil											
FY86	0	0	2	0	0	0	0	1	0	0	3
FY87	0	0	1	1	1	0	0	2	0	0	5
FY88	2	0	0	0	1	0	0	4	0	0	7
Criminal											
FY86	0	0	0	0	0	0	0	1	0	0	1
FY87	1	0	0	0	0	0	0	1	0	1	3
FY88	0	0	0	1	1	0	0	0	0	0	2
Totals	3	0	3	2	3	0	0	9	0	1	21

Mr. Oberstar. Mr. Doyle, I would like to quote your predecessor, Mr. Robert Dawson, a former denizen of this committee. In testimony at Senate Oversight hearings on 404 and the clean water program, he said: "Congress did not design Section 404 to be a wetlands protection mechanism. It does not function in that capacity."

Do you concur with that statement?

Let me repeat. "Congress did not design Section 404 to be a wetlands protection mechanism."

Clearly, I don't concur with that. That is as false a reading, as misunderstood a grasp of that language, as I have ever seen. Nothing could be farther from the truth. I am sure I could give that to a highschool civics student—the language of the law—and come up with a better statement. I just can't imagine what Mr. Dawson was saying there. But it reflects the state of mind.

Mr. Doyle. As you so well know, and as you have mentioned, Mr. Dawson was a denizen of the committee at the same time that you were acting on behalf of the committee to put a lot of the requirements that are in Section 404 in place.

I probably should not try to get inside his mind and describe what I think he was trying to say, but I am going to do it anyway. My guess is that what Bob was trying to say with those words is that there is a tremendous amount of wetlands loss that occurs outside the statutory authority and the scope of Section 404. In that context, Section 404 does not operate well to regulate wetlands losses throughout the country, and therefore, it is not a good tool for purpose of addressing the bigger question of wetland losses wherever they occur.

Mr. Oberstar. Well, that's a good try.

Let me say that I hope that it is your view that Congress did intend for Section 404 to be a wetlands protection mechanism. If I read your testimony and hear your words as I heard them, with the sincerity with which you delivered your testimony, I think you intend to make that a purpose and a principal goal of the Corps.

Mr. Doyle. Mr. Chairman, there is no question whatsoever in my mind about an awareness in the Corps about how important wetlands are to the ecology of our country. There is no question in my mind about the awareness of the Corps of the role that Section 404 can play in providing protection to those wetlands.

Mr. Oberstar. What do you mean by a public interest review?

Mr. Doyle. A public interest review is the process that we go through in evaluating permit applications and in making decisions as to whether a permit should be issued or denied, and if issued, under what circumstances.

Mr. Oberstar. Is that a statutorily derived authority?

Mr. Doyle. That is an authority that the Corps has been operating under for as long as I have had any association with the Corps, and well before that. It is not an authority that is specifically referred to, as far as I am aware, in the Clean Water Act.

Mr. Oberstar. There is no specific grant of authority in Section 404. Ms. Hanmer, is that your understanding?

Ms. Hanmer. That's correct.

Mr. Oberstar. But the public interest review aspect of the permitting process is something that was added to—sort of freelanced, if you will. You are saying that derives in some sense from the Corps' overall general authorities in water resource matters?

Mr. **Doyle**. Yes, sir. Proceeding as far back as its responsibilities under Sections 9 and 10 of the 1899 Rivers and Harbors Act.

Mr. **Oberstar**. That old 1899 act has sure been used to cover a multitude of sins. Its authority has been stretched perhaps beyond its original purpose.

Mr. **Doyle**. But at the same time, it has been used to provide tremendous protection, not just to navigation, but to water quality prior to having a Clean Water Act.

Mr. **Oberstar**. To be sure, before we had the Clean Water Act of 1972; even when the first act was written in 1956. There is no question about it.

But had Congress intended a public interest review procedure to be a part of the 404 permitting program, would we not have written that into the legislation? Would we not have had reference to it in committee report, in floor language, and statements of managers? I don't find any.

Mr. **Doyle**. Well, again, with that kind of question, I have to try and interject myself into a process that I was not a part of. This one goes even farther back that the question of Mr. Dawson's comment of a couple of years ago.

Obviously, Congress can choose to approach legislation in any number of ways. One way to look at what Congress' intended with respect to the public interest review is the one you just gave.

Another approach one that I personally feel is more persuasive, is that Congress, when in acted in 1972, and then again in 1977 to add the current Section 404 requirements, did so knowing full well that the Corps used a public interest review test and was quite comfortable with the Corps use of that test. Nothing about the Clean Water Act indicated a desire on Congress' part for the Corps to stop using that test. So that, in fact, was a sanctioning by Congress in each of the instances in 1972 and 1977 of our use of that test.

Mr. **Oberstar**. Well, I think that the Corps has stretched a point.

The thrust of the 404 program was specifically, although hotly, debated. There were conflicting views both in this committee, in the Senate committee, and in conference, that resulted in perhaps less focus to mission than environmentalists would have liked and not quite as diffused a mission as developers would have liked.

Nonetheless, the thrust was to protect these vulnerable lands. If the evaluation process on permitting should be narrow and narrowly focused on the preservation of wetlands, then the presumption was to come down in favor of preserving the wetlands. That was why that language was included, perhaps clumsily. Perhaps in the future it might be written with sharper focus.

Nonetheless, I think it is important for us to have this discussion because the mind set of the agency's management of this program is very important. Adding an element here that has been described as the Public Interest Review creates another slant on the whole process that perhaps in some respect explains the complexity with which this program is administered.

Mr. **Doyle**. Well, clearly, if Congress does currently intend that Section 404 permit decisions be reached entirely and solely on the basis of Clean Water Act goals, objectives, and considerations, it obviously has the power and should have the power, to make that statement clear. There would, however, be a very important consequence that would follow from that kind of decision. That would be a consequence that looks to water quality objectives important as they are—to the exclusion of other very legitimate national interest objectives.

Mr. OBERSTAR. I don't deny that that should be done. I am just saying that Congress did not provide specifically that authority. The Corps review process has imputed an authority that was not written in that original act. Your explanation has given us at least an understanding of why and how it came to that point.

I will withhold further questions at this time and recognize the gentlewoman from Connecticut. I will ask the gentleman from Georgia to assume the Chair.

[Mr. Rowland assumed the Chair.]

Mrs. JOHNSON. Thank you very much, Mr. Chairman.

Welcome to both of you at this long day of deliberations.

Mr. Doyle, what do you mean by the Corps is not authorized to regulate the majority of actions causing wetlands losses in this country? What are the major causes of wetlands loss?

Mr. DOYLE. I have a list that maybe I could ask Mr. Barrows to go into, but draining of wetlands, for instance, is not covered by Section 404, and a number of other activities.

Mrs. JOHNSON. Ms. Hanmer, has EPA ever done a study of what are the major causes of wetlands loss, and what percentage of wetlands loss can be attributed to each kind of action?

Ms. HANMER. We have certainly looked at this informally. But I think both Mr. Doyle and I are referring to a report done by the Office of Technology Assessment, which they issued in 1984. If I recall correctly, they had used the statistic that 80 percent of wetlands loss was caused by activities, again, largely drainage, that were not covered by the regulation under the Water Quality Act.

Mrs. JOHNSON. That is actually really stunning to me. I missed that report. I am really surprised when I think of the enormous price taxpayers are paying in my hometown because the government can't get itself together around this issue. Frankly, the issues I am referring to—as most of you probably know—are really rather small projects in rather big trouble. As far as wetlands impact, we are talking of just a few acres. That part of the activities of society could be so bogged down in what has become a bureaucratic nightmare—and that 80 percent of the problem is outside this rulebook—really stuns me.

Mr. DOYLE. Mrs. Johnson, it is clearly one of the frustrations that we feel as well. In addition to draining: clearing, excavating, flooding, plowing, shading, poisoning, burning, mowing, and grazing can all result in wetlands losses, none of which is covered under the 404 permit program.

Mrs. JOHNSON. I certainly believe that if this committee seeks to rewrite this law that we are going to have to do something. I mentioned this earlier on; you can't exclude farm activities. Politically you might want to, but you can't. Not when I have employers out in small towns trying to create an alterative form of employment to farming. It is an area of the country where small farms are under incredible pressure. Then I have a permitting agency—and I won't say which one of you—arriving on the scene, with a building under construction, and saying, by the way, you know, there is going to be an acre and a half affected here. You have to stop. I mean finally it blows your mind.

The public can't believe in a Government that operates this way, that ignores the draining of certain areas and then comes after a job-creating operation. There is such a minimal impact that the people who live there can't even recognize this as wetlands or a wetlands problem. I do think that our earlier questions about the definition of wetlands is very important.

I would ask each of you to comment on this. Is your Agency—and I heard the earlier comments about the discussions that are going on about coming to some conclusion about definition. It is my understanding from dealing with the problems in my district that your agencies, or one of your agencies, or someone, has redefined wetlands in the last few years so that the old definitions no longer hold. The consequence of that is that mitigation plans that in the past were acceptable are no longer acceptable.

What I am really referring to is the definition of wetlands in the mud/grass sense, the relationship of uplands to that, and this zero-sum game that the agencies have decided to play, which I support in the long run. I can go into more detail if you want.

Do either of you support any formal policy change from the Washington level that has now said that wetlands cannot be expanded as a mitigation action to allow a project if the area taken had some other environmentally sound usage.

Mr. DOYLE. I am not aware of anything like that nor are Messrs. Barrows or Goode.

Ms. HANMER. In terms of the formal definition of wetlands, that has remained pretty much set for a number of years under both the Army regulations and the EPA's regulations. There have been some differences of interpretation, especially in connection with certain geographic types of locations, bottomland hardwoods, for example, where the question of how to properly interpret the regulatory definition has been worked out in the field.

We talked earlier about the fact that the Army and EPA have slightly different wetlands delineation manuals, which we have been field testing this last year. I think we are going to be able to resolve before very many months have passed. We will be able to issue a joint wetlands delineation manual. That ought to help a lot. It is truly an intolerable circumstance that needs to be worked out.

The no-net-loss, however, is more a goal than it is a matter of function of wetlands. That comes down to what our policies are. It is one of the EPA's policies that we have articulated to our regions in our operating guidance.

Mrs. JOHNSON. When did you articulate that no-net-loss policy?

Ms. HANMER. I don't know when it was first articulated. Most recently, it was in our fiscal year 1988 Operating Guidance, which is the guidance they have been operating under this year.

Mrs. JOHNSON. It is fiscal 1988.

When you say no-net-loss, you don't mean no-net-loss of wetlands?

Ms. HANMER. Literally, in any given project, we do not mean no-net-loss of wetlands. It is a policy goal. It is possible under that goal to look at wetlands creation. Generally speaking, we have a lot a questions about wetlands creation projects.

Our first priority is to look at areas where there are degraded wetlands that might be upgraded, or existing wetlands whose functions might be enhanced. If you can do those kinds of things, it is possible then that some wetland acreage may be taken for a beneficial project. But we have been tightening our review of projects in large part because we are concerned about the continuing loss of wetlands, including activities regulated under 404.

Mrs. JOHNSON. I don't object to a no-net-loss policy or goal. I certainly would prefer to see—where some loss has to be taken—lower quality wetlands improved or new wetlands built.

But if you are going to do that, if you are going to change the policy here, then you also have to recognize that on very small sites there may be no place to gain an offset then. Under the old policy, it also did look actually for no-net-loss of wetlands, but allowed excavation of uplands to achieve wetlands. You could, even on a small site, create greater wetlands.

The no-net-loss policy now seems to involve not only no-net-loss of wetlands, but also no sacrifice of other environmentally desirable areas. I also have no trouble with that if, now having changed the policy, you also change the arena in which it is being applied.

In some of these very old highway projects that are 10 years old, that were laid out on a certain basis, and where there is only a few acres involved, you can't change a policy of that nature and be able to comply with it. You can't necessarily say that for that reason the highway shouldn't be built, when it is 1.8 miles of a longer project and where we have everything built around it for years.

I don't want to see the effort for it toward enforcement—which I do see out there right now—take the form of an irrational level of requirements in very small, old projects. They are, in a sense, old business and cannot comply with this new vision. I am very much afraid of that.

Frankly, this is one thing that interests me about the different mission of your two agencies because I do see a broader view of the public interest coming from the Corps than I do from EPA in some of these specific little projects. I think it is important to have in the record that there has been a policy change as of 1988 that does look for a different resolution. In the short run and in the practical, specific view, it should be implemented in a way that is sensitive not only overall public interests, but also taxpayer costs.

Mr. ROWLAND. Gentlelady, will you yield?

Mrs. JOHNSON. Yes.

Mr. ROWLAND. We have about six minutes for a vote. I apologize. We have two votes. There will be a five minute vote following this one, and then we will come back.

[Recess.]

Mr. ROWLAND. The subcommittee will come back to order. We will resume our deliberations.

I am sure that Mrs. Johnson will have some additional questions that she will want to ask. In the meantime, I have some parochial questions that I want to ask.

You are familiar with the Lake Alma project in Bacon County, Georgia. It is a project which I have neither opposed nor supported. I have remained neutral on it. I have not found that easy to do. I do have two or three questions that I want to ask about that. I don't want my questions to indicate that I am either for or against it. I want my questions to be neutral also, but it is a matter of trying to get some information that the constituents there have asked me to get.

It seems to me that what has happened there is an example of the problems that we have of definitions and the interaction of the resource agencies and the Corps of Engineers, because this is a project that has gone on for a long, long time. It still has not reached a resolution.

It was first mentioned in 1958, as I said this morning in talking with the folks from GAO. In 1976, the EPA and the U.S. Fish and Wildlife Service indicated that the proposed project was unacceptable. However, in 1978, the Fish and Wildlife Service said that it would not oppose the project if Greentree Reservoirs were developed to offset the loss of the wildlife habitat there. Lake proponents agreed to build those.

Then, in 1981, the EPA dropped its opposition to the lake. The Corps of Engineers subsequently permitted its construction. But there was an injunction brought by environmental groups which stopped that. The Corps was ordered by the courts to make a new assessment of the environmental impact, including how the Greentree Reservoirs would affect it.

In 1987, last year, the Corps reissued its environmental statement. The EPA reversed itself and said the lake was unacceptable. It had changed its position again. The Corps went ahead and issued a permit. Then invoking 404(c) the EPA has again stopped construction. Is that essentially correct, the history that I have given on that, to your knowledge?

Ms. HANMER. There were a few other things that happened; but yes, I think that is essentially correct.

Mr. ROWLAND. Well, I want to ask some questions about what else did happen. I want to make the comment that people in general in that area did not seem to be informed to the extent that they understood what was going on. There was a considerable amount of uncertainty on the part of the people as to just what was taking place and what could happen. It certainly has proved to be an emotional situation between those who are opposed to the lake and to those who are for the lake.

I also have a question as to what happened to cause the EPA to drop its opposition to the lake in 1981 and then to come back and oppose it?

Ms. HANMER. I believe that Administrator Gorsuch's decision in 1981 was based on——

Mr. ROWLAND. Would you pull the microphone a little bit closer to you?

Ms. HANMER. Certainly.

I was involved with Lake Alma at certain points. In 1977, I was the Director of the Office of Federal Activities when we recommended to the Administrator that this be referred to the Council on Environmental Quality. In 1980, I was the Regional Administrator in Atlanta. We put ourselves on record as stating that the Greentree Reservoir proposal would not meet the 404(b)(1) Guidelines. We felt there was no environmentally acceptable rationale for this project.

I think that the Administrator, in 1981, when she reversed this, did it on the basis of the advice of other people. I think that she was badly advised. It was not a factual decision. It was based on the long, long record of controversy in this project. The decision was made just to drop the controversy on it.

Mr. ROWLAND. I wonder how often decisions like that are made? It is rather disturbing to think that a decision would be made on that type of basis and not on facts.

Ms. HANMER. Well, we had some disturbing times.

Mr. ROWLAND. And they are still disturbing.

The EPA has ruled several mitigation plans as unacceptable. With this in mind, do you have some idea about what mitigation plans would be acceptable if any?

Ms. HANMER. Well, right now, we are in the process of holding a hearing and making findings pursuant to 404(c). Certainly, it was our judgment in initiating a 404(c) action that the Lake Alma project, as designed, and with the Greentree Reservoirs, would have an unacceptable adverse effect.

The loss of 1,350 acres associated with this project is not mitigated by the Greentree Reservoirs. The loss of high quality aquatic habitat is also not mitigated. That was the finding that we used to base our objections on this project at various points in its history. It was also the basis for our 404(c) actions.

At this moment, the Regional Administrator in Atlanta has held a public hearing. I believe it was about two weeks ago.

Mr. ROWLAND. Yes.

Ms. HANMER. We have received a request—I think we have granted it—to hold the record open until September 19th. At that point, the Regional Administrator will consider the testimony and written comments that he has received and recommend his final decision to Headquarters.

Mr. ROWLAND. So you don't plan for it to be elevated to another level then?

Ms. HANMER. It is elevated in the sense that the Regional Administrator does not make the final decision on the 404(c) veto. I do. So he will make a recommendation to my office. But a final action will occur. We are obliged by our own procedures to make our final determination in 60 days after the matter is sent to Washington, D.C.

Mr. ROWLAND. Do you anticipate that any mitigation would be acceptable to EPA in this instance?

Ms. HANMER. We are in the middle of the process, so I really can only cite to you the fact that based on our determination thus far, based on the information we have, this project looks as if it will have an unacceptable adverse impact. Despite the attempts to develop a mitigation plan, there is still a very significant loss of wetlands habitat associated with this project.

Mr. ROWLAND. I have one other question in this respect. I made an inquiry by letter concerning Frank Jackson State Park and a lake there, which some constituents in my district say demonstrates essentially the same facts as Lake Alma. The question was: why was that approved and the Lake Alma denied?

The less than responsive response that we got back is that it was denied on a case-by-case basis; EPA really did not answer the question that was asked. Can you elaborate any?

Ms. **Hanmer**. I don't know the circumstances of this particular lake at all. I was not involved with the program at the time Lake Jackson was being considered. But I apologize for the rather shorthand answer you received. The Regional Office is putting together a technical answer for you and your constituents on that matter.

Mr. **Rowland**. I do thank you very much for answering those questions for me.

Now let me recognize the gentlelady from Connecticut if she wishes to finish her questioning. I think you have about five more minutes.

Mrs. **Johnson**. Thank you very much. I appreciate that.

I didn't want to just finish up on the line of questioning that I had begun. We were talking about the policy that you adopted in 1988. At the time that you adopted that policy about no-net-loss, did you also develop any guidance that would govern old projects that had been on the books a long time and that might have difficulty fitting within this new guidance?

Ms. **Hanmer**. We have not developed any guidance on this issue specifically.

There are two elements to this that are pertinent. One is that the EPA Regions in the last few years—and this is being accelerated this coming year—have been encouraged to do advanced identification so that we could go to priority wetland areas and mount studies. Then we can inform people—before permit actions become pertinent—what are the valuable wetlands; where should activities take place; and where should they be avoided. We think that the advanced identification program is a way to try to get ahead of the issue before we get into long controversies like this.

The second thing is our policy toward practicable alternatives which, I think, is pertinent in the case of these Connecticut highway projects. That is, when do you get to mitigation.

We have encouraged our Regions to ensure that there is compliance with the 404(b)(1) Guidelines—including an adequate evaluation of alternatives—before we will discuss a compensatory mitigation process. This is not a new policy, but I think that is part of the comments that the Region has been making on these Connecticut projects. The issue is whether or not alternatives were fairly discussed. In some of these projects, we have been raising this issue for the last number of years.

Mrs. **Johnson**. Do you have a timeframe within which practical alternatives—and this is for both of you—ought to be proposed?

Ms. **Hanmer**. Our position on this was covered in the Attleboro decision. We talked about it in terms of alternatives that are reasonably available to the applicant. We don't think, however, that means that they have to be available when the permit application is filed.

Mrs. **Johnson**. I think you misunderstand me.

What I am asking is: do either of your agencies have a policy that governs the timeframe within which your agencies are responsible for laying out all the alternatives that a State must consider?

Ms. HANMER. Certainly. In the permit review process itself, we operate according to the time table in the permit review process. So when we first comment on a notice or a permit application we tell the applicant from the point of view of the EPA Region and Headquarters what it is we believe needs to be done on a project.

Mrs. JOHNSON. Well, why is it then that one of the problems with the expressway project has been that after we thought that we had reviewed all the alternatives then both agencies came back with new alternatives. Recently, EPA has come back with yet another alternative. The irony of that is that they are going to use wetlands to displace wetlands.

Why is it that at this point—now remember, the Federal highway people let us let the contract; Federal tax dollars, my people's tax dollars, at both the State and the Federal level. The contracts are out there with penalty provisions. We have almost lost an entire construction season. Now we are already—just in the last couple of months—into new alternatives, when this is a project that is eight years old?

It has been a couple of years—I don't know how many years, two or three or maybe one and a half—since the State government passed the authority for the new project. That is just one of the things that is driving the world crazy out there—outside of Government—that Government comes in after the fact and then keeps coming back. Well, you don't like this alternative, how about this alternative? Don't you have any kind of policy that says, look, three months after, a specific date we are done.

Ms. HANMER. In thousands of cases, we reach agreement with permit applicants on the practical alternatives. I think in the cases that drag on like this, it is because the applicant refuses or is unable to consider the alternatives that we request he consider.

Mrs. JOHNSON. In this particular case, part of that goes back to this redefinition of what the mitigation is going to be in this no-net-loss thing, because I was actually told that by Government officials. Months ago we thought it was all settled and everybody was in agreement. Then it turns out they weren't in agreement, but that wasn't clear.

Anyway, I wanted to know whether there was a timeframe beyond which you can't bring up new alternatives that the State then must examine. Because I do find it ludicrous that the State should be providing engineering designs on yet another alternative at this point. So I think that the issue of timeframe, as well as guidance when a policy is changed—what the guidance should be in regard to policy's old projects that met the old policy but they can't meet the new policy—are both important.

Just to go on—because I don't want to take too much time—this same issue is there in mitigation. Do you have clear standards of what you require in mitigation? Our experience has been everybody sitting around the table with the Federal Government people saying, tell us what you want to do in mitigation. Then we have to go through the process of telling you what we want to do.

Now remember, we have machines stopped. We have penalties rolling out there. So we say, tell us what you want, and we will try to give it to you. Then it is, no, no. You tell us what you want to give us. I'll tell you, I never sat at a table that I found anymore infuriating than the situation with all of the agencies involved in this issue. My own State agency being frustrating as well, and frustrated.

We shouldn't be getting ourselves to this point. Do you or do you not have clear standards of what you will accept in mitigation? Do you have clear standards as to what has to be on-site? How many miles away does it have to be? Is ocean-based tidal basin action acceptable for an inland mitigation project? What are your standards? What is the policy we are working within? This is for both agencies. I only get the subtle idea that you are behind it. Far be it for me—if you are working out Memoranda of Agreement—to figure out what you are doing over there.

I can tell you that there are no clear standards that guide our process in mitigation. We need them. Do you have them and I just don't know about them? Did they somehow not seep out in my hometown? I do need to know much more clearly what your standards are.

How long you can go on asking us to investigate new highway alternatives while the tax dollars are being poured out. Is there an attachment to this 1988 guidance that specifically addresses itself to old projects that might have trouble complying?

Ms. **Hanmer**. We don't have clear standards because of the case-by-case decisions we get into, and particularly because of the differences in the value of the wetlands in question. I think it would be pretty difficult for us to put out a fine line. We have had some Regions that would say something like four for one, or two for one, or one for one, or one and a half for one. But any of those is so arbitrary that, no, we have not put out a standard.

Mrs. **Johnson**. How about model projects? Do you have model projects that you can show to States and say, well, this is the kind of thing we like?

Ms. **Hanmer**. Not at this point.

Mrs. **Johnson**. Do you have anything that you can tell them? I understand. I don't want a Federal standard that says two to one, or one to one. But there has got to be something on the other side of the table besides, well, show us your cards and then we will tell you if we like them. So that is what I am looking for.

Ms. **Hanmer**. Yes. I would say that the fact that we work out probably several hundred projects each year indicates that in practice a lot of these things do get worked out by the professional people in the field. We are moving towards better definitions of what cumulative impact is. We are moving toward better definitions through our research of whether or not you can establish wetlands. We prefer, if you are going to mitigate with wetlands, that you go to degraded wetlands that are capable of providing valuable natural functions and use those for mitigation rather than get into new creation projects.

Mrs. **Johnson**. Well, thank you. I do appreciate your being here. I appreciate your talking with us about the difficulties of the process. I certainly don't differ with you on our goals. Thank you.

Mr. Rowland. Mr. Clinger?

Mr. Clinger. Thank you very much, Mr. Chairman.

Earlier, Ms. Hanmer, you talked about a need for improving, expanding, and enlarging the State role and that your ability to really carry out responsibilities under the act would be enormously eased if the State were to assume a larger role. I want you to define a little bit more what you have in mind as far as a State role is concerned. John, you might also respond to that.

Ms. Hanmer. There are a number of things that I think an expanded State program could do. One is that it could address the issues more broadly than 404 does in terms of appropriate controls within a State over drainage, clearing, and other kinds of destruction of aquatic areas not covered by 404.

Another thing that a State could do—and an example in the highway projects—is if you have a State authority, that State authority can be working much more effectively than we can with our limited resources at an advanced identification effort, mapping the State's most important wetlands, and looking at areas where wetlands are degraded and could be upgraded to develop mitigation banks, for example. Those are the kinds of planning activities that a State program could address much more effectively than we are able to do from the Federal level.

Finally, in the permit process itself, having State capability on site is extremely effective in terms of detecting unauthorized violations and dealing with them. When we get into these land use issues, having the States being able to take an authoritative role—which they are allowed to do right now in the program, but many States do not—I think would help resolve some of these competing Federal interest matters that we have been talking about.

The States have the authority right now to participate very meaningfully in the program because they have the authority to certify under Section 401 of the Clean Water Act that a permit meets their water quality standards and goals. So even if a State is not in a position to take formal delegation under Section 404, they have the legal entry right now through Section 401 certification. We are working with the State agencies in the water pollution control area as well as the fish and wildlife area to see whether they can't take much more effective advantage of this authority.

Mr. Clinger. You say they have authority now to carry out surveillance and enforcement activities?

Ms. Hanmer. Quite frequently, when a State has that authority—and some States have only coastal wetlands authority. Some States have coastal and freshwater wetlands. Where they have it and are carrying it out, often it will alleviate the need for a Federal action.

Mr. Clinger. I guess my only concern is that I've had experience in other areas where there has been joint Federal and/or State enforcement responsibilities. Too often the person being surveilled or enforced upon is whipsawed between conflicting and/or confusing instructions from either the State or the Federal inspector. I think that there have been problems in that area. So I would think that we would want to make sure that there was very clear definition of where the responsibility ended.

Ms. Hanmer. Absolutely.

If a State has the program under a formal delegation agreement then that delegation agreement would spell coordination in the enforcement process. It would spell out the appropriate roles between the State and the Federal agencies.

Mr. CLINGER. Yes.

Mr. DOYLE. Mr. Clinger, as far as the general concept is concerned, I totally agree with Rebecca. It would really improve the program to have the States assume a greater responsibility for purposes of its implementation. The agencies are very much together behind that general concept.

Some areas that offer great opportunity for States to assist are:

One, in jurisdictional determinations. Recently, we entered into a Memorandum of Understanding with the State of New Jersey. Our New York and Philadelphia Districts, have been operating for about a month and a half, if I remember correctly, under a system whereby we will take the State's jurisdictional call for evaluating permits. We think there may be tremendous promise in this area for other States.

Second, there is tremendous opportunity in the enforcement arena for States to help augment some of the Federal efforts, particularly as long as we and EPA face resource constraints, both financial and personnel that. I see continuing for the near term.

Third, we believe that there might be a division of responsibilities that could very meaningfully take place whereby the Corps would continue to focus its efforts on permitting activities under Section 404 in the areas of the Nation's water that are more traditionally defined as navigable waters. For other waters of the United States, the regulatory responsibility of those nontraditionally navigable waters could be turned over to the States. That is another way that we think the pie could be divided to the advantage of the regulated public and to the effectiveness of the Clean Water Act's goals.

Mr. CLINGER. Mr. Doyle, one of the witnesses this morning basically gave the Corps a very poor report card in terms of meeting its responsibilities under the act. They cited 10 or 15 areas where they felt the Corps remiss or had been ineffective.

The other way of looking at that is something that has also come out in these hearings. You have myriad considerations to take into account when you are making a determination as to whether to grant a permit or not, not the least of which is the economic impact. Is that true? In other words, are you permitted to take into account those kinds of considerations and effects?

By the same token, some of the resource agencies that we've had testimony from have indicated that they do not take those kinds of factors into consideration. Their sole guideline, if you will, is the environmental impact on the wetland. Can you define that a little better for me and discuss that a little bit?

Mr. DOYLE. Yes, sir. I would be glad to.

Let me do it in connection with the question that I thought I heard you ask one of the earlier witnesses about the National Wetlands Policy Forum.

Mr. CLINGER. Yes.

Mr. DOYLE. At one point in that Forum, the issue came up in the following terms. I believe it was the Governor of South Carolina who made the point in response to an argument that was being made at that time that the sole focus of the decisionmaking ought to be in terms of Clean Water Act goals.

His example, as I recall it, was that of a barrier island on which, for better or worse, construction had already taken place. There were in place residences which found themselves periodically—such as Texas is now facing today—with hurricane season and the need to evacuate the island. The need to have a road. If, for public health and safety reasons, that road was absolutely essential then only a public interest type balancing process would allow that consideration to take place.

If the decision—with respect to siting that road in a wetland, in a water of the United States—was based solely on water quality considerations then, inevitably, the decision would result to force a denial of any permit application to construct such a road. So that's one example where, for public health and safety reasons, a balancing might be appropriate.

For another example, we might hearken back to the early and mid 1970's when the country faced very severe energy shortage problems as a result of the oil embargo. There was a need to take very quick and effective action to respond to the tremendous decrease in petroleum that was being imported into the country in order to maintain the Nation's economy.

If there were not some kind of public interest process to allow decisions to be reached, to take into consideration other legitimate National need, maybe the ultimate decision that was necessary in the public interest would not be able to be reached.

Mr. CLINGER. Then, in light of what you just said, a couple of agencies—the Fish and Wildlife Service particularly—have talked about an expanded role in terms of permit processing and approval. What would be the position of the Corps as far as that suggestion? Should the role of Fish and Wildlife or of the other resource agencies be strengthened? Should they have more of a veto power, more of a say in permit considerations, or indeed, in any phase of 404 implementation?

Mr. DOYLE. I have not been persuaded to date that they should. I say that, among other reasons, based on a feeling that if we have as much difficulty as we've had thus far with two agencies sharing relatively significant responsibilities for purposes of this program administration, it strikes me that we are only going to compound that problem by bringing more and more agencies into that process in a way that will only complicate, I suspect, the implementation of the program.

Mr. CLINGER. Ms. Hanmer, do you want to respond to that as well?

Ms. HANMER. I would like to respond to the issue about economics and the Clean Water Act, if I could.

Mr. CLINGER. Yes.

Ms. HANMER. It is true that the basic test under the Clean Water Act is whether there are, in our 404(b)(1) Guideline, practicable alternatives to the activity, and whether there is a significant degradation of waters of the United States caused by the activity.

In the example Mr. Doyle just cited: first, I think we would take a look at whether there are practicable alternatives. There is some economic evaluation built into that kind of judgment.

Secondly, the nature and the significance of the impact is considered when you are considering whether or not there is a practicable alternative. So the alternatives test is less burdensome for less significant activities than it is for activities that are highly significant in terms of environmental degradation.

So while not an economic test, there is a practical consideration there that is not strictly Clean Water Act, if you will. It gets into the nature of the project, the values of the project, as well as the significance of the project for the public. So while there may be less room than a straight public interest review, balancing is concerned. There are considerations within the context of the 404(b)(1) Guidelines. We are taking a number of these factors into consideration.

Mr. CLINGER. I would agree with you. I think that we have heard, however, that you need to be somewhat rational about these practical alternatives. Sometimes the practical alternative is not feasible at all. I think what you were suggesting earlier—and that is to have the State involved in an earlier stage of things—might head off those kinds of problems. Having an interstate highway making a 90 degree turn and that sort of thing is not really a practical alternative in some cases.

I think that is all. I have no further questions.

Mr. ROWLAND. I think I have one question that I would like to ask before I go to Mr. Roe.

Could you tell me about the 404(b)(1) Guidelines, how they work in the permit process?

Ms. HANMER. The 404(b)(1) Guidelines are regulations promulgated by EPA after consultation with the Secretary of the Army. In fact, as regulations, they go through the full review process of being proposed. We take comment and we publish.

The current guidelines were published in December of 1980. Those are the guidelines that the Corps of Engineers' people in the field use when they evaluate individual permit applications.

The guidelines do have a regulatory effect. They do not contain hard and fast standards such as if you have 1.2 of this or 1.4 of that you are in violation. Rather, they contain a series of steps or considerations that have to be taken into account. The most important factor is the establishment of a presumption that waters of the United States do not have to be taken or significantly altered. So the applicant has to show what alternatives are available to carry out the activity to minimize harm to waters of the United States.

The other test beyond that is: given the evaluation of alternatives, does the project, nonetheless, have a significant adverse effect.

The regulations contain a number of specific tests, but those are the two important ones.

Mr. ROWLAND. Thank you.

Mr. Roe?

Mr. ROE. I want to thank the Chairman.

I'm really not prepared because I didn't hear both the folks' testimony. But I think what I would like to ask is, John, are the same basic guidelines applied to each Corps District in the quest of the situation or does it vary? Is there an overall Corps position that says in each District we shall follow this particular criteria? To your knowledge.

Mr. DOYLE. We have general guidelines that are applicable to the entire body of the Corps of Engineers, all 37 of our Districts, for purposes of implementing Section 404. That is not to say that within those general guidelines and directions there are not differences among Districts one from another. There are some differences.

Mr. ROE. There is nothing that is rigid, so to speak, in that effect?

Mr. DOYLE. That is correct.

Districts are left with some flexibility to make proper and reasonable decisions on a case-by-case basis, but always within the general guidance that comes from Headquarters to implement the act.

Mr. ROE. Ms. Hanmer used the point and used the phraseology: "harm to the waters of the United States." What puzzles me is that when we go back and look at the history of this whole issue and how it finally arose to the court cases involved, and so forth—I'm sure you are familiar with it— it really came to the point of what we were doing on dredge material, what we were dumping into waterways primarily, as I recall, when we first started out. Then it grew like topsy from there into these other particular areas.

In other words, what would harm the waters of the United States? It puzzles me when we have a piece of property that is 3 acres, and we have a little bit of a wet spot here. It might just be a piece of clay under there and so forth and so on. If you filled it up or emptied it out, it wouldn't have a damn bit of difference in affecting the waters of the United States. But they seem to give to as much attention to that. I'm running into this continuously, time and time and time again on some nitpicking point that doesn't really matter. When it comes to the point of a major issue, I don't feel we're getting quite the attention we should be getting on the major issues.

That leads me to the earlier point of our discussion. This is not wetlands bill. That is the first thing that has to be recognized. I don't consider the 404 permit situation to be a wetlands bill. It grew that way. The question is, in view of the order of magnitude involved: should we be considering a true wetlands bill?

Should we be coming back and saying, well, there ought to be inventories taken, one? Two, they will vary in different regions of the country depending upon whether it's hardwood forest down in the south, or something up in New Jersey that is a little bit different. There not all going to be the same. Particularly, you get to the point of a net- loss, one-to-one.

What kind of a broad goal should we be doing? Is this bill adequate enough for the way it's being administered to be able to achieve that goal? I'm beginning to doubt very definitely that it is not.

Ms. HANMER. Well, in response to the issue of whether or not Section 404 is a wetlands protection measure, if to the extent that wetlands are defined legitimately as "Waters of the United States" under the Clean Water Act, then they are entitled to the same kind of protection as other waters of the United States. That is the position that we have taken. Whether it is from contamination by toxic chemicals, or whether it's by destruction by fill. The reason Section 404 became so important in wetlands protection was because of the vulnerability of wetlands to shear physical destruction.

In terms of what a wetland is, the most vexing issues, perhaps, are when we are dealing with isolated wetlands that are not associated with flowing waters of the United States or not adjacent to them. Under the wetlands definitions that both the Corps and EPA use, we look at the functions of those wetlands and whether or not there is an interstate commerce nexus.

Mr. Roe. An interstate commerce what?

Ms. Hanmer. Nexus.

Admittedly, that's easy to demonstrate if an interstate water fowl is using that particular area for nesting, feeding, or some other purpose, or if people are coming interstate to fish there. But there is some judgment that is applied in determining whether they are isolated wetlands, or wetlands for purposes of waters of the United States.

In terms of whether there are differences, absolutely, yes, there are differences. All different types of wetlands have different functions and different values. This has been a part of our scientific information. I don't think that we know all that we would like to know about wetlands, or are very professional at it yet, I admit. But we do attempt to help our field people understand different wetland types and what their values are and their functions. When we interpret the no-net-loss goal, I think we ought to interpret it in terms of the loss of wetlands functions and not merely acres.

Mr. Doyle. Mr. Chairman, if I might, I believe— and this is only my view—the answer to the question I heard was yes. We do need an effort to look legislatively at the question of wetlands protection in a comprehensive way. I think we need to do that for a number of reasons.

One, as we become more educated in this area, like so many others, the more informed we become, the more aware we are of how important wetlands are to our ecology and to an awful lot of values that the American people hold very dear.

Second, I agree, and we talked about this earlier, Section 404 does not come close in terms of scope to addressing all of the possible areas in which wetlands are lost.

Third, if we are going to protect the ecological values that wetlands represent and do that in a way that strikes the proper balance between other legitimate national interests, then we need to do it comprehensively, not on a piecemeal basis.

Mr. Roe. The substance of the testimony today, and I think that all members would agree to this, has been one that is derogatory. The Corps is a bunch of bums and EPA is a bunch of bums and you are all doing a lousy job and therefore, we are losing tens of thousands of acres of land each year or more. Now what was that based upon? That was based upon the point of view that EPA was not doing enough regulation, you were not taking enough people to jail, and the Corps was not doing their job and they were trying to mitigate. Then the discussion went on the point of view of trying to resolve these matters and come up with a reasonable approach and so forth and so on. The substance of the damning part came that thick from the Wildlife people who said, "Hey, you people are doing a terrible job and in spite of the fact that we have the Section 404 permit issue, really what you are doing is that you are not doing the job and we are losing more and more wetlands that we should not be losing, and this is a terrible thing." In fact, they should be coming back saying that you do not have the jurisdiction—neither body has the jurisdiction to cover the type of things that we should be talking about when wetlands are involved in the first place because we never designated a national goal as far as wetlands are concerned. Both of the authorities stem from different pieces of laws and different intentions that were made in the way that we are handling the wetlands issue today. For example, suppose you declare a piece of land to be wetlands. That's okay, but the citizen comes back and says, "Wait a minute. In this zoning law over here, that piece of property was zoned for industrial use. I have paid taxes on that for 35 years and now you are telling me that I can't use it?" Should this citizen get any recompense for his taxes? That is a reasonable question.

More important, he can not use that land. Therefore we have ex-appropriated that land. You have taken away the citizen's right to the use of the land that the citizen owns, without just compensation, due and just compensation. Do we have the right to do that? We have a situation—I am boiling over in this thing—in my own area, and it is not over yet, where they absolutely nitpick over literally one-quarter of an acre. "We'll build over the top of it. We'll dig you three acres over here. We'll give you ten-to-one." But no, it has got to be that little fringe on there. Now that is crap, if you will pardon my language. It should not be allowed to be done. If you are going to do that—and this is no baloney—there is a $1 billion development involved in this, $1 billion in rateables to that community. For that quarter of an acre, we can not move that thing for the last three-and-a-half years. Somebody has got to be responsible someplace to make a decision, yea or nay, and give me the right to go to court to have my redress under the Constitution. You do not have the right to ex-appropriate my land, and that is exactly what you are doing.

Up in Wanaque, New Jersey there was a little dam called Lake Inez. It has been there for a hundred years. It did not get there out of natural whatever—it was built there to provide hydro-power for a little textile plant. Do you know what EPA made us do? They made us move that plant over by about three miles at a cost of $3 to $4 million. "Well, just move the plant because there are some rushes and reeds in there, and it is a natural area that's been there since God created Earth." Baloney, it was not there in the first place. Do you know what the antithesis to that is? When they breached the dam two years later, there was no longer a Lake Inez, the stream bed went back to where it was originally, and the whole area dried up. But it cost us $4 million and four years of delay because some nitwit did not have the right direction in evaluating the public needs and the rights of people. I do not think that approach is right. I know that this is happening in your New York area both in the Corps district, and in the EPA, and it is fundamentally wrong.

There is another issue on another piece of property where they have been waiting and where they have spent $800,000 to $900,000 on environmentalists and lawyers and so forth on a six-acre piece of property where the people are willing to re-do it and double the amount of pond. Do you know how the pond was created? The property above put a drainage line in 60 years ago under the road and they then drained their water on to somebody else's land, which became marsh land. It was never there and the old topography maps show that it was not there before. Do you know what your EPA people are wanting them to do? They want the town to rezone the land area. That is how far EPA has gone in the New York District, and I consider that to be totally arbitrary and I think that it is completely capricious in the use of the authority that your agencies have. Now there is no stronger person in this country on water resources and Section 404 and the rest of it, but I think that I have just about had it up to here. There has got to be some redress someplace and some body or some court that can decide an issue like this. It should not just be an arbitrary situation, and that is what we are running into. Should we have a wetlands law that defines specifically what the national goals are, what the wetland clarifications are, and what we are trying to achieve? In fact, it is an integral part of our non-point source discharge situation that we started to write into the last Clean Water Bill as we went along. Many of the environmental issues that we are speaking about, we wrote into the Water Resources Development Bill, which is now starting to be advocated. You have to pardon me, if the members will. I just feel that we have to do something that is going to be a much more comprehensive resolution to the wetlands issue than just doctoring up the existing legislation.

I thank the Chair and the members for indulging me.

Mr. Rowland. Do you want to respond?

Ms. Hanmer. Yes, after that.

Mr. Doyle. And I would like to just reiterate that I think the answer is yes. Mr. Roe points out as only he can how difficult a task it will be for the Congress to be able to address that comprehensive legislation because the issues are by no means clear. You have questions of constitutional takings and requirements for compensation, which will run counter to pressures to maintain budgetary limitations which are in place. You have questions of competing values, such as agriculture versus environmental versus developmental, and it is going to be a very difficult task. It is a task worth attempting though, if we all really do believe as we say we do that the Nation's loss of wetlands is as big a problem as we seem to agree that it is.

Mr. Rowland. If there are no additional questions or comments, I thank you both very much for your indulgence today. I apologize again for the amount of time that it has taken, but I am sure that you understand the problem.

I understand that there will be supplemental questions for the Corps of Engineers from Congressman Oberstar and Congressman Stangeland. The questions and responses will be placed in the record of this point.

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
WASHINGTON, DC 20310

4 JAN 1989

Honorable James L. Oberstar
Chairman, Subcommittee on
  Investigations and Oversight
Committee on Public Works
  and Transportation
House of Representatives
Washington, D. C. 20515-6259

Dear Mr. Chairman:

Thank you for your letter of November 29, 1988, jointly signed by Congressman William F. Clinger, Jr., transmitting several questions in connection with the recent hearing on the administration of Section 404 of the Clean Water Act. Enclosed is our response to your questions.

It was my pleasure to testify before the Subcommittee on Investigations and Oversight and present our views on the difficult Section 404 program. I appreciate your interest in wetlands protection and would be pleased to provide further assistance to the Subcommittee.

Sincerely,

John Doyle

John S. Doyle, Jr.
Principal Deputy Assistant Secretary
of the Army (Civil Works)

Enclosure

Answers to Subcommittee Questions

Question 1) The Corps claims that it cannot evaluate cumulative effects of its permit decisions. How then can the Corps factor in the value of a wetland into an individual permit decision or a Public Interest Review, without knowing the total number of acres of that type of wetland that will remain after that permit is issued?

Answer:

The Corps does not have a standard methodology or the resources to effectively evaluate cumulative impacts for permits on a case-by-case basis. The Corps professional staff does exercise their best judgment using available information and information provided by the resource agencies when evaluating each application. The GAO report accurately reflects the concerns over how to address the cumulative impacts of proposed projects requiring a Section 404 permit. The public interest review is a process whereby the Corps considers the many factors set forth in the regulation in arriving at a decision. The Corps does not have the capability or the resources to determine the total number of acres of wetlands involved within each watershed or subwatershed in relationship to all past activities/projects or proposed future action and the proposed project which is under consideration.

Question 2) The Clean Water Act in Section 404(e)(1) authorizes the Secretary to issue general permits for activities that are similar in nature, and cause only minimal adverse environmental effects when performed separately, and will have only minimal cumulative adverse effect on the environment. On what basis has the Corps issued any Nationwide Permits if the Corps cannot assess cumulative effects? On what basis has the Corps formulated Nationwide Permit 26, which applies to categories of waters rather than categories of activities?

Answer:

The Corps at least every 5 years reviews the nationwide permits and the decision on minimal cumulative impacts based on the best available information, which is admittedly limited. However, division engineers also monitor certain geographic areas when they become aware of potential problems. In some of these cases, division engineers have required individual permits or added regional conditions which address cumulative impacts.

The authority for the Corps of Engineers to issue nationwide permits for discharges of dredged or fill material is contained in Section 404(e) of the Clean Water Act. It requires authorized activities to be similar and result in minor individual and cumulative impacts. However, a legal analysis of the Act, including a close review of the legislative history indicates that Congress fully intended to endorse our general and nationwide permit program as it was operating in 1977. This nationwide permit is an environmentally sound modification of those permits in effect in 1977. That determination coupled with the requirements of Section 101(f) of the Clean Water Act and Executive Order 12291 indicates that this permit complies with Section 404(e).

Question 3) Substantial wetland acreage is being lost because developers, instead of applying for an individual permit for their operations, are subdividing a single large holding into many small, individual homesites which are eligible for Nationwide Permits. Does the Corps have the authority to stop this practice? Could additional emphasis on the calculation of the cumulative effects of this practice lead to the requirement for an individual permit for the development of a large holding?

Answer:

The Corps does not have the authority to stop developers from subdividing a single large holding. Although, the smaller lots may qualify for nationwide permit (NWP) 26, the Corps has the authority to assess the cumulative effects of the many small fills and if there are concerns for the aquatic environment exercise discretionary authority and require individual permit applications. This has been done on several occasions.

Question 4) The Fish and Wildlife Service has suggested that the Corps determine areas or circumstances of general exclusion, where wetlands cannot be dredged or filled, as the counterpart to general permits. What is the Corps' reaction to this suggestion?

Answer:

Our legal authority to issue "general denials" is not clear. However, as part of our revisions to the NWP procedures and NWPs themselves which is expected early next year, the Corps will seek comments on this concept. We will then be in a better position to assess the viability of this concept. However, EPA under Section 404(c) of the Clean Water Act now has the authority to prohibit disposal sites.

Question 5) Consistency of decision-making is one area in which the Corps' administration of the program has been criticized, with some Districts being characterized as "pro environment" and others as "pro development." In what way does guidance from headquarters seek to control this apparent variability?

Answer:

The Corps has developed an internal control review system. This system is just now starting and will monitor several key areas which will be reviewed for consistency. The Corps also has developed a training program which will provide for a balanced and consistent approach to the administration of the regulatory program. The Corps also periodically issues regulatory guidance that addresses inconsistencies between districts.

Question 6) what is the Corps' understanding of its authorities under the 1987 Clean Water Act amendments to Section 309 authorizing issuance of administrative orders and penalties?

Answer:

The 1987 amendments authorized the Corps to assess administrative civil penalties for violations of Corps issued permits.

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
WASHINGTON, DC 20310-0103

09 DEC 1988

Mr. Joseph A. Italiano
Editor
Committee on Public Works
  and Transportation
House of Representatives
Washington, D. C. 20515

Dear ~~Mr. Italiano~~ Joe:

As requested by Congressman Stangeland, I am sending you my responses to his question for inclusion in the record of the Investigations and Oversight Subcommittee Hearing on Wetlands and Section 404, which was held September 14, 1988.

Sincerely,

John Doyle

John S. Doyle, Jr.
Principal Deputy Assistant Secretary
of the Army (Civil Works)

Enclosure

HONORABLE ARLAN STANGELAND
QUESTIONS FOR I & O HEARING ON
WETLANDS/SECTION 404 PROGRAM
SEPTEMBER 14, 1988

1. Q. WHAT IS THE CURRENT STATUS OF THE MEMORANDUM OF AGREEMENT BETWEEN THE CORPS AND EPA REGARDING ADMINISTRATIVE CIVIL PENALTIES AND OTHER ENFORCEMENT MATTERS? WHEN WILL THE AGREEMENT BE COMPLETED AND WHAT WILL IT CONTAIN?

   A. THE MEMORANDUM OF AGREEMENT REGARDING ENFORCEMENT OF SECTION 404 HAS BEEN DRAFTED AND IS AWAITING FINAL APPROVAL, ALONG WITH A RELATED DRAFT OF A NEW MEMORANDUM ON JURISDICTION FOR SECTION 404. THE REMAINING ISSUES FOR THE JURISDICTIONAL MEMORANDUM ARE BEING NEGOTIATED AND WILL BE RESOLVED AS SOON AS POSSIBLE.

2. Q. TO DATE, HOW MANY TIMES HAS EPA USED ITS NEW ADMINISTRATIVE CIVIL PENALTY AUTHORITY? HAS THE CORPS USED ITS COMPARABLE NEW AUTHORITY? IF NOT, WHY? IS IT BECAUSE OF THE CORPS ADMINISTRATION AND IMPLEMENTATION OF THE NEW PROVISION OR BECAUSE THE RIGHT CASE HASN'T COME ALONG YET?

   A. THE CORPS HAS NOT USED ITS NEW ADMINISTRATIVE FINE AUTHORITY TO DATE. EPA HAD EXISTING ADMINISTRATIVE FINE PROGRAMS IN PLACE, AND ADAPTED THOSE TO THE 404 PROGRAM. THE CORPS DID NOT HAVE ANY PROGRAMS TO USE AND IS EXPECTING TO MODIFY EPA'S REGULATIONS AND GUIDANCE TO MAKE THEM FIT ITS NEEDS.

3. Q. ARE THE STATES OF MINNESOTA AND WISCONSIN STILL INTERESTED IN ASSUMING THE 404 PROGRAM PURSUANT TO 404(G) THROUGH (P)? IF NOT, WHY? IF SO, WHAT WILL BE THE IMPACT OF THE NEW CORPS/EPA REGULATIONS ON STATE ASSUMPTION?

   A. THE STATE OF MINNESOTA RECENTLY INITIATED A STUDY OF WHAT WOULD BE NECESSARY TO ASSUME THE PROGRAM. THE PROJECTED COMPLETION DATE IS JANUARY 1989. THE STATE OF WISCONSIN HAS PROPOSED A STUDY TO BE CARRIED OUT DURING THE NEXT TWO YEARS. IT IS DIFFICULT TO ASSESS THE IMPACT THE NEW REGULATIONS WILL HAVE BECAUSE THERE ARE MANY ITEMS SUCH AS FUNDING, STAFFING, AND COMPATIBILITY WITH EXISTING STATE LAWS, THAT MUST BE EVALUATED BY EACH STATE.

4. Q. WHAT WOULD BE THE IMPACT OF WIDE SPREAD STATE ASSUMPTION OF THE 404 PROGRAM? IS IT REALISTIC TO EXPECT MANY STATES WILL ASSUME THE CORPS 404 PROGRAM? IF NOT, WHY?

A. THE IMPACT WOULD BE TO REDUCE THE WORK LOAD OF THE CORPS REGULATORY PROGRAM. IT DOES NOT SEEM REALISTIC TO EXPECT MANY STATES TO ASSUME THE PROGRAM AS LONG AS THERE ARE NO FEDERAL FUNDS PROVIDED TO HELP DEFRAY THE COST OF OPERATION. THE EPA TRANSFER REGULATIONS STILL CONTAIN MANY AGENCY OVERSIGHT PROVISIONS. SUCH OVERSIGHT APPEARS TO DISCOURAGE STATE ASSUMPTION OF THE PROGRAM.

5. Q. HOW MUCH DOES A 404 PERMIT APPLICATION TYPICALLY COST THE APPLICANT? HOW WOULD THIS CHANGE UNDER THE PROPOSED COST RECOVERY SCHEDULE (DONE BY THE CORPS AT THE REQUEST OF THE APPROPRIATIONS COMMITTEE CONFERENCES IN LAST YEAR'S CONTINUING RESOLUTION H. J. RES. 395)?

A. THE CORPS CHARGES A $100 FEE FOR COMMERCIAL PERMITS AND A $10 FEE FOR PRIVATE PERMITS. GOVERNMENT INSTRUMENTALITIES ARE NOT CHARGED A FEE. THERE ARE COSTS TO APPLICANTS ASSOCIATED WITH THE COLLECTION OF INFORMATION REQUIRED FOR EVALUATION OF THE APPLICATION, BUT THOSE HAVE NOT BEEN QUANTIFIED BY THE CORPS. UNDER THE COST RECOVERY SCHEDULE, THE APPLICANT WOULD BE REQUIRED TO PAY NOT ONLY THE COSTS OF COLLECTION OF THE INFORMATION, BUT ALSO A COST ASSOCIATED WITH THE GOVERNMENT'S VERIFICATION, EVALUATION, AND PRESENTATION OF THAT INFORMATION, AS REQUIRED TO MEET THE NEEDS OF THE NATIONAL ENVIRONMENTAL POLICY ACT AND OTHER APPLICABLE STATUTES. CURRENTLY THOSE COSTS ARE BEING PAID BY THE CORPS, WITH THE EXCEPTION OF SOME THAT ARE ASSOCIATED WITH LARGE ENVIRONMENTAL IMPACT STATEMENTS. THE RESULT WOULD BE THAT APPLICANTS WOULD PAY MORE FOR THE EVALUATION OF A PERMIT APPLICATION THAN UNDER THE CURRENT SYSTEM.

6. Q. MR. DOYLE, (JOHN) HOW MANY APPLICATIONS HAVE BEEN MADE FOR THE 404(F)(1)(C) DRAINAGE DITCH MAINTENANCE EXEMPTION IN RECENT YEARS? HOW MANY EXEMPTIONS HAVE BEEN GRANTED?

A. THE NUMBER OF DRAINAGE DITCH MAINTENANCE EXEMPTION REQUESTS HAS NOT BEEN COLLECTED ON A NATIONAL BASIS. HOWEVER, IN ANSWER TO THIS QUESTION AND QUESTION NO. 11, PRIOR TO THE ESTABLISHMENT OF A DISTRICT POLICY IN NOVEMBER 1987, THE ST. PAUL DISTRICT AVERAGED ABOUT 20 APPROVALS PER YEAR FOR DRAINAGE DITCH MAINTENANCE UNDER THE PROVISIONS OF THE NATIONWIDE PERMIT FOR THE ACTIVITIES IN WATERS ABOVE THE HEADWATERS. SINCE 1987 THE DISTRICT HAS REVIEWED 20 - 25 PROPOSED MAINTENANCE ACTIVITIES AND DETERMINED THAT 3 MET THE EXEMPTION. WE WOULD EXPECT THAT THE DISTRICTS ADJACENT TO ST. PAUL DISTRICT WOULD HAVE HAD A SIMILAR EXPERIENCE, WITH THERE BEING LESS ACTIVITY IN OTHER PARTS OF THE COUNTRY. MINNESOTA WAS THE FOCAL POINT FOR THE ISSUES ASSOCIATED WITH DITCH MAINTENANCE EXEMPTION. FINALLY EPA HAS THE AUTHORITY TO INTERPRET THE 404(F) EXEMPTION PROVISIONS AND MAY HAVE MADE DETERMINATIONS WHICH DID NOT RESULT IN A PERMIT BEING REQUIRED. THE ST. PAUL DISTRICT DID NOT REPORT ANY PERMIT APPLICATIONS AS HAVING RESULTED FROM AN EPA DETERMINATION.

7. Q. THE SO-CALLED "RECAPTURE PROVISION" OF 404(F)(2) REFERS TO ANY ACTIVITY THAT HAS THE PURPOSE OF BRINGING AN AREA OF THE NAVIGABLE WATERS INTO A USE TO WHICH IT WAS NOT PREVIOUSLY SUBJECT. IS THIS BEING CONSTRUED, INSTEAD, AS A RESULT ORIENTED TEST? WHAT HAPPENS WHEN A FARMER CLEARLY INTENDS NOT TO BRING AN AREA INTO A NEW USE BUT SOMEONE ELSE DETERMINES THAT HIS ACTIONS DO, IN FACT, BRING THE AREA INTO A NEW USE?

A. EPA IS RESPONSIBLE FOR SETTING POLICY ON ISSUES ASSOCIATED WITH THE 404(F) EXEMPTIONS, AND WOULD BE EXPECTED TO PROVIDE US AN ANSWER IN THIS SITUATION ON A CASE-BY-CASE BASIS. WE HAVE NOT ASKED EPA FOR AN ABSOLUTE RULING ABOUT HOW TO DETERMINE AN INDIVIDUAL'S INTENT.

8. Q. WHAT IS THE CURRENT TEST FOR REESTABLISHED OR REEMERGED WETLANDS IN RELATION TO THE 404(F)(1)(C) EXEMPTION AND THE "NO NEW USE" REQUIREMENT?

A. THERE IS NO CURRENT "TEST" FOR THE SITUATION DESCRIBED. HOWEVER, AN EVALUATION WOULD LIKELY BE BASED ON CREDITABLE HISTORICAL EVIDENCE, SUCH AS AERIAL PHOTOGRAPHY AND SOIL CONSERVATION SERVICE REPORTS. THIS IS THE TYPE OF INFORMATION THE ST. PAUL DISTRICT IS USING TO MAKE THESE DECISIONS.

9. Q. PLEASE PROVIDE FOR THE RECORD A STATUS UPDATE ON DITCH #18 IN LONG PRAIRIE, MN; DITCH #32 IN STEARNS COUNTY; AND THE PROPOSED PERMIT FOR APPROXIMATELY .05 ACRES OF WETLAND ADJACENT TO THE CLEARWATER RIVER AT BAGLEY, MN.

A. THERE IS AN ACTIVE VIOLATION FILE FOR THE YELLOW MEDICINE RIVER WATERSHED DISTRICT DITCH NO. 18 IN LONG PRAIRIE, MN. THE DISTRICT IS DISCUSSING VOLUNTARY RESTORATION WITH THE PROJECT PROPONENT. A LITIGATION REPORT IS BEING PREPARED ON THE STEARNS COUNTY DITCH #32 VIOLATION FOR FORWARDING TO HEADQUARTERS TO BE USED IN FRAMING DISCUSSIONS WITH EPA ABOUT THE PROPER INTERPRETATION OF THE DITCH EXEMPTION PROVISIONS. A PERMIT APPLICATION IS BEING PROCESSED FOR THE PROPOSAL NEAR BAGLEY, MN. THE DISTRICT EXPECTS TO MAKE A DECISION WITHIN THE NEXT TWO MONTHS.

10. Q. FOR THE RECORD, PLEASE PROVIDE INFORMATION ON THE CORPS INTERPRETATION OF THE TERMS USED IN SECTION 404(F)(2). HOW OFTEN DOES THE CORPS FIND THAT A PROPOSED ACTION WILL RESULT IN A "CHANGE IN USE" OR "A REDUCTION IN REACH, CIRCULATION OR FLOW"?

A. IN AUGUST 1987 THE CORPS AND EPA ISSUED JOINT GUIDANCE CONCERNING THE PROVISIONS OF SECTION 404(F)(1)(C) AND THE RECAPTURE PROVISIONS, SECTION 404(F)(2). SPECIFIC NUMBERS ARE NOT AVAILABLE ON A NATIONAL BASIS FOR DETERMINATIONS UNDER THE RECAPTURE PROVISION. WE WOULD EXPECT THE FIGURES TO BE SIMILAR IN MAGNITUDE (APPROXIMATELY 15% MEET THE EXEMPTION) AS THOSE PROVIDED IN THE RESPONSE TO THE PREVIOUS QUESTION ABOUT NUMBERS OF APPLICATIONS AND EXEMPTION FOR DITCH MAINTENANCE.

11. Q. IN THE ST. PAUL DISTRICT AND IN THE NATION AS A WHOLE, HOW MANY TIMES HAS THE CORPS DETERMINED THAT THE 404(F)(1)(C) MAINTENANCE EXEMPTION APPLIES? IF SPECIFIC NUMBERS AREN'T AVAILABLE, PLEASE PROVIDE BASIC ESTIMATES.

A. THIS QUESTION WAS ANSWERED AS PART OF THE ANSWER TO QUESTION NO. 6.

12. Q. IN DETERMINING WHETHER THE 404(F)(1) EXEMPTION APPLIES, WHO PROVES THE DITCH IS ONLY MEANT TO BE RETURNED TO ITS ORIGINAL DIMENSIONS?

A. THE PERSON REQUESTING AN EXEMPTION CONFIRMATION MUST SUPPLY INFORMATION INDICATING HIS INTENTIONS AND THE CONDITION OF THE DITCH PRIOR TO HIS PROPOSED WORK. THE CORPS OR EPA MUST CONFIRM THE INFORMATION IN MAKING EXEMPTION DETERMINATIONS.

13. Q. WHAT IS THE CURRENT POLICY ON SOLID WASTE AND SECTION 404? WHO REGULATES THE PLACEMENT OF GARBAGE INTO WETLANDS: EPA OR THE CORPS? IF A MEMORANDUM OF AGREEMENT EXISTS BETWEEN THE TWO AGENCIES, WHAT DOES IT SAY AND IS IT WORKING?

A. THE CURRENT POLICY ON SOLID WASTE AND SECTION 404 IS NOT CLEAR. THE CURRENT MOA WAS WRITTEN TO ALLOW EPA TO HANDLE MOST SOLID WASTE ACTIVITIES UNDER THE PROVISIONS OF SECTION 309. THAT PROVISION HAS NOT BEEN SUCCESSFULLY USED DUE TO UNFORESEEN LEGAL ISSUES ABOUT THE APPROPRIATENESS OF SECTION 309 FOR THIS PURPOSE. EPA HAS BEEN RELUCTANT TO USE THE 309 PROVISIONS AS A MEANS OF PROVIDING A FEDERAL APPROVAL FOR INDIVIDUAL ACTIVITIES. DISCUSSIONS ABOUT THE MOA HAVE BEEN ON GOING WITH EPA SINCE DECEMBER 1987. IN THE MEANTIME, THE MOA HAS PROVIDED ONLY LIMITED COVERAGE FOR THESE ACTIVITIES, WITH THE CORPS PROVIDING MOST OF THE ACTION.

14. Q. WILL EPA'S NEW RULE ON STATE ASSUMPTION OF SECTION 404 PROGRAMS SPEED UP THE PROCESS AND ENCOURAGE MORE STATES TO ASSUME THE PROGRAM?

A. THE NEW EPA RULE ON STATE TRANSFER OF THE SECTION 404 PROGRAM WILL NOT LIKELY ENCOURAGE MORE STATES TO ASSUME THE PROGRAM. THE NEW

REGULATIONS DO NOT GO FAR ENOUGH IN REMOVING UNNECESSARY CASE-SPECIFIC EPA OVERSIGHT OF STATE PROGRAMS. THE STATE OF NEW JERSEY IS WORKING TO MEET THE EPA REQUIREMENTS AND IS EXPECTED TO ASSUME THE PROGRAM IN 1989. FUNDING IS ALSO A MAJOR CONCERN EXPRESSED BY THE STATES.

15. Q. ARE CITIZEN SUITS AVAILABLE FOR VIOLATIONS OF SECTION 404?

A. PURSUANT TO SECTION 505 OF THE CLEAN WATER ACT, CITIZEN SUITS ARE AVAILABLE AGAINST ALLEGED VIOLATORS OF SECTION 404.

[Mr. Doyle's prepared statement follows:]

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY
(CIVIL WORKS)

COMPLETE STATEMENT

OF

JOHN S. DOYLE, JR.
PRINCIPAL DEPUTY ASSISTANT SECRETARY OF THE ARMY
(CIVIL WORKS)

BEFORE THE

SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT

COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

U.S. HOUSE OF REPRESENTATIVES
ON SECTION 404 OF THE CLEAN WATER ACT

SEPTEMBER 14, 1988

NOT TO BE RELEASED UNTIL APPROVED BY THE
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
U.S. HOUSE OF REPRESENTATIVES

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OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY
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COMPLETE STATEMENT
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JOHN S. DOYLE, JR.
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BEFORE THE
SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT
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U.S. HOUSE OF REPRESENTATIVES
ON SECTION 404 OF THE CLEAN WATER ACT
SEPTEMBER 14, 1988

Mr. Chairman and Members of the Subcommittee, I am John S. Doyle, Jr., Principal Deputy Assistant Secretary of the Army for Civil Works. I am accompanied today by Mr. David Barrows, my Assistant for Regulatory Programs and Mr. Bernie Goode, Chief of the Regulatory Branch, Headquarters, U.S. Army Corps of Engineers.

Mr. Chairman, in your letter of invitation you asked that I address five subjects:

1. The General Accounting Office (GAO) Report entitled "Wetlands: The Corps of Engineers Administration of the Section 404 Program";

2. The Corps enforcement policy for the Regulatory Program, including the roles of the Headquarters, Division, and District offices;

3. Department of Army views on major policy differences with the Federal "resource" agencies;

4. The Corps understanding of its Congressional mandate under Section 404 and the Clean Water Act in general; and

5. Any insights into the ways in which the program can be improved to further the Clean Water Act's goals.

Before addressing these subjects, I would like to provide some background information on the Corps regulatory program.

BACKGROUND

The GAO report focused primarily on the Corps regulatory program under Section 404 of the Clean Water Act and its correlation to wetlands. As you know, the Corps regulatory program is broader than Section 404 alone and includes regulating all work and structures in navigable waters of the United States covered by Section 10 of the Rivers and Harbors Act of 1899. About 40 percent of the permit applications submitted to the Corps each year require authorization only under Section 10, 40 percent involve both Section 10 and Section 404, and approximately 20 percent involve only Section 404.

The Corps annually receives about 14,000 standard permit applications, of which, the Corps issues or denies 11,000 permits. The remaining 3,000 applications are either cancelled by the Corps, withdrawn by the applicant or qualify for a general permit. The Corps also investigates approximately 6,000 reported violations of the Clean Water Act and responds to thousands of requests for jurisdictional determinations. With this volume of work the Corps backlog of pending applications has increased in recent years, particularly in the last two.

The Corps regulatory program employs approximately 900 people, located in over 160 cities. Of these, about 600 evaluate applications, 150 are involved with enforcement activities, and 150 provide clerical support. In addition, other Corps functional elements such as the Offices of Counsel and Environmental Resources Branches provide support to the regulatory program on a recurring, but as needed basis. The Corps annual regulatory expenditures have ranged between $50 and $58 million for the past 5 years. The Corps expects to spend approximately $60 million in FY 89.

The regulatory program is labor intensive because as a rule, permit decisions and enforcement cannot be "contracted out" to the private sector. In addition, as the program has matured, the laws, judicial decisions, and procedures that affect regulatory decisions have increased in both number and complexity. This makes it essential to develop and pursue policies that will reduce duplication and unnecessary paperwork.

I will now turn to the specific items you addressed in your letter of invitation.

GAO REPORT

Overall, we would characterize the GAO report as factually accurate, but incomplete in its discussions of the underlying causes or reasons for its findings. In addition, we believe that some of the report's recommendations would not effectively improve the program. The recommendations also fail to recognize existing and past initiatives of a similar nature which have already been undertaken by the Federal agencies.

The report correctly recognizes that the Corps does not have the authority to regulate the majority of the activities causing wetlands losses. However, it then concludes that the Corps is not doing all that is possible to protect wetlands under existing authorities based on other agencies' criticisms of the Corps program management. The report recommends that the Corps be directed to develop baseline information which would "enable the Corps to determine the extent of the Section 404 program's impact on wetlands." Further, the report recommends that the Corps coordinate and consult with the other Federal agencies to develop consistent and workable procedures for (1) considering practicable alternatives to filling wetlands; (2) delineating wetlands; and (3) allowing the agencies more appeal rights concerning individual permit decisions. Finally, the report recommends the Corps work with EPA to improve the section 404 enforcement program. I would like to discuss each of these recommendations in order.

WETLAND BASELINE

The Corps is not authorized to regulate the majority of actions causing wetland losses in this country. The GAO report recommends creating a baseline of information to determine the effectiveness of the 404 program. We are not sure that a useful baseline to determine the effectiveness of the 404 program could reasonably be developed. Such a study would have to include a wide variety of factors that are difficult to describe and measure. An example of one such factor is the deterrent effect of the permit denial, or stated another way, whether the denial of one permit will result in other applications never being submitted for evaluation. Another factor is the deterrent effect of enforcement activities. Because such effects cannot be easily quantified, estimates of acreage saved or protected would be significantly less reliable.

Most wetlands are lost through activities that are outside the scope or jurisdiction of Section 404 and are unregulated. In addition, Federal, State and local agencies have responsibilities that impact the way wetlands are utilized or protected. The affect of unregulated losses and the decisions of others beside the Corps would have to be factored into the baseline study, requiring considerable expenditure of resources to gather the information. Simply deciding which wetlands should be included in the study would require the agreement of all the Federal resource agencies on an accurate definition of "wetlands", an agreement, I might add, that may be difficult to reach since there is clearly a difference between wetland methodology for purposes of inventory as compared to purposes for regulation.

For example, the Fish and Wildlife Service is preparing the National Wetland Inventory. Pursuant to this study, the Service is preparing maps to inventory wetlands. Although these maps can be used as a resource tool in the regulatory arena, these maps are on too large a scale to make regulatory jurisdiction decisions for permits. In addition, the detail needed to account for each agency's unique assumptions and definitions would add significantly to the cost and complexities of a baseline study.

PROCEDURES

The second recommendation presented by the GAO report was to require the Corps to increase coordination with the Federal resource agencies to develop procedures for considering practicable alternatives and delineation of wetlands and to provide the agencies more appeal rights. First let me discuss, the issue of an appeal for permit decisions and defer the other two items for later in my statement.

We believe that Federal resource agencies already play an active role in the regulatory process and are afforded many opportunities to express their views and to insure those views receive full consideration. As the GAO report found, the Corps uses a variety of techniques to effect pre-application coordination with other Federal agencies. In some instances the resource agencies are included from the beginning; in others, due to limitations on resources or need, the public notice and comment period serves as the vehicle for consultation. This provides the agencies with an opportunity to comment and/or object to an application in a structured format. Opportunities for on-site visits and interagency meetings exist whenever the normal commenting process fails to provide sufficient interagency coordination. The resource agencies also have the option to seek elevation of a permit decision through the provisions of the Memoranda of Agreements (MOAs) promulgated pursuant to Section 404(q). The Environmental Protection Agency (EPA) has an additional option available to veto Corps permit decisions through Section 404(c).

It has been our experience in some cases that increasing the coordination and oversight roles of the resource agencies adds duplication and paperwork without appreciable benefits to the quality of individual permit decisions. While we welcome resource agency comments to insure permitting decisions are environmentally sensitive, we must guard against adding unnecessary procedures that would only encumber the decisionmaking process.

ENFORCEMENT

The GAO report recommends that the Corps coordinate with EPA to improve enforcement for Section 404. Corps enforcement practice has developed around a central policy of "even-handedness" and a policy of prioritizing work to get the most return for the action being taken. The Corps has traditionally sought enforcement through voluntary compliance, administrative action, including after-the-fact permitting and judicial enforcement seeking restoration, and civil/criminal penalties. The focus of our enforcement policy has been to first seek rehabilitation of the environment rather than extracting penalties just for the sake of punishment.

When Section 404 was added in 1972 to the Corps regulatory program, EPA, not the Corps, was given explicit authority to enforce against unpermitted discharges. This lack of explicit authority for enforcement by the Corps resulted in an agreement with EPA in 1976 which allowed the Corps to take enforcement action against unpermitted discharges. To date, the Corps has been the primary agency pursuing enforcement against unauthorized discharges. In 1977, the Corps was given explicit authority to enforce against violations of Corps-issued 404 permits. This was strengthened by provisions in 1987 which authorized the Corps to seek administrative fines for permit violations. We welcome the deterrent value of the administrative fine authority and are working with EPA to complete an MOA which will make better use of each agency's enforcement authorities and resources. We expect that effort to be completed soon.

We continue to work closely with the DOJ on enforcement referrals to assure that cases are properly pursued and litigated. In the last year, we successfully completed the first two jury trials, obtaining liability verdicts in each, and have prosecuted literally hundreds of nonjury cases. Many cases are settled, by consent decrees, for restoration of the disturbed wetlands, mitigation or other environmental benefits, and penalty payments to the United States Treasury. Notwithstanding the heavy demands on the limited environmental enforcement resources of the Government, including the Justice Department, civil and criminal actions are being brought against 404 violators. We will continue to do so.

Enforcement actions, like other regulatory actions, are primarily the responsibility of the Corps District Engineer and his staff. The Division office is available for consultation and guidance on implementation of the program and on individual cases. No active enforcement role has been assigned to the division level. The Headquarters office prepares the basic administrative regulations describing the procedures and rules to be followed and is also available for support, consultation and guidance concerning both programmatic and case specific implementation. This is the same decentralized approach the Corps has used successfully with other aspects of the regulatory program. We believe it provides an appropriate level within the agency with the authority and responsibility necessary to get the job done in the most efficient, effective manner.

Oversight for enforcement is provided by a review of ongoing cases and upward reporting requirements. Last year the Corps began collecting information about enforcement on a quarterly rather than annual basis. We hope that this intensified oversight will aid our managers in determining the appropriate priority to assign to enforcement activities. Enforcement is labor intensive, and the resources the Corps has available for the entire program must be allocated so as to provide enforcement while meeting other demands associated with the permit program in general.

POLICY DIFFERENCES

With respect to agency policy differences in the program, the GAO report recommends we develop consistent and workable procedures for handling these issues. We agree and would note that over the years the agencies have successfully resolved many differences. In a program as technically oriented, geographically diverse, and socially complex as that required under Section 404, it is inevitable that Army and the resource agencies will continue to have some differences, particularly in light of the congressional design to include agencies with different charters to provide checks and balances to the Section 404 program. Three policy differences are highlighted as problems in the GAO report; jurisdiction, mitigation, and consideration of alternatives.

JURISDICTIONAL EXTENT

Section 404 jurisdiction has a long history of litigation and administrative and congressional debate. Disagreements between the Corps and EPA prompted a 1979 request to the Attorney General concerning which agency had the ultimate authority to set the jurisdictional boundaries of the "waters of the United States." In response, Attorney General Benjamin Civiletti issued a formal opinion which stated that EPA had the ultimate authority to determine the extent of jurisdiction of the Clean Water Act. In 1980, EPA entered into a Memorandum of

Understanding (MOU) with the Corps which provided that the Corps would continue to make jurisdictional calls in all areas except those designated by EPA as "special cases."

The increasing emphasis on wetlands led the Corps in the early 1980's to begin research on a method for consistently delineating the landward boundary of wetlands. That effort led to the publication and distribution in January 1987 of a method which requires that a positive indicator of hydric vegetation, hydric soils, and wetland hydrology be present to define a wetland subject to Section 404 jurisdiction. This method has been field tested during the last year and the results of the test are being evaluated.

In the mid 1980's, EPA also began development of a wetland delineation manual which was distributed during the summer of 1987. EPA's method was tested during the same period as the Corps method. While the two methods are not identical, they have many similarities. The Corps and EPA are optimistic that they will publish an agreed-upon method for delineating wetlands later this year.

As a result of the Food Security Act of 1985, The Soil Conservation Service, in cooperation with the Fish and Wildlife Service, developed another method for delineating wetlands. That method relies upon soils and vegetation but maintains that a soil cannot be drained, which is similar to the Corps position on hydrology. Yet another Federal method for describing "wetlands" is that developed and employed by the Fish and Wildlife Service in the National Wetland Inventory. It is generally recognized by all Federal agencies, however, the National Wetland Inventory encompasses many more areas than are considered wetlands for the purpose of Section 404 regulatory authority. To further complicate matters, the States have about as many different wetland definitions as there are States.

MITIGATION

Mitigation policy involves two questions, "When do you mitigate and how do you mitigate?" We believe the best approach to mitigation is to allow applicants to develop and include mitigation as part of the project planning efforts for the permit application. This allows an early recognition of the public and private needs and benefits of the proposal, the quality of the wetland being impacted, and the quality of the mitigation being proposed. When deciding how to mitigate for wetland impacts, we believe wetland protection, restoration, and creation are all valid options to be used.

PRACTICABLE ALTERNATIVES

One of the most difficult issues affecting the evaluation of permit applications to fill wetlands is the consideration of practicable alternatives. Currently the three most debated aspects of this issue are: 1) how far back in time must one look to identify available alternatives? 2) what constitutes a reasonably available alternative?, and 3) can mitigation be used to reduce the impacts of an alternative to a level where it becomes the least environmentally damaging alternative?

These matters are still not resolved, but we have made progress towards clarifying them and continue to work toward a mutual agreement. In our view, in order for an alternative to be practicable it must be reasonably available to the applicant at the time of permit application and mitigation can be used to reduce the impacts of the applicants preferred alternative.

SECTION 404 MANDATES AND CLEAN WATER ACT RESPONSIBILITIES

This leads me to a discussion of the Corps view of its mandates under Section 404 and the Clean Water Act. Under Section 404 the Corps has two basic responsibilities:

1. To evaluate permit applications for the discharge of dredged or fill material into the navigable waters at specified disposal sites and to decide whether to issue or deny permits, after providing notice and opportunity for public hearings.

2. To insure compliance with Corps-issued permits, which may include issuing an order requiring compliance, seeking one of two classes of administrative penalties, or bringing a civil/criminal action for appropriate relief.

With respect to the Clean Water Act in general, the Corps has a responsibility to further the objective of the Act to restore and maintain the integrity of the Nation's waters by implementing a program that serves the public interest. The Corps has gone to great lengths to do this by operating an effective and efficient program.

CONCLUSION

In conclusion, Mr. Chairman, we believe that over time the 404 program has benefitted from a streamlining of its management practices and an improvement in its environmental sensitivity.

The program now employs a highly skilled professional staff, two-thirds of which are trained in the natural sciences. Their ability to understand the complex issues involved in evaluating permit applications has markedly improved the quality of permit decisions. We have seen an increase in the mitigation being required of applicants and the majority of projects are modified to reduce impacts. We have also seen an increase in the number of applications denied for environmental reasons. All of this indicates that the program has changed considerably since the days when everyone asked "what's so important about wetlands?"

The resources allotted to the implementation of the 404 program have been limited in the past and, until recently, we were unsuccessful in persuading Congress to accept the President's proposal to increase those resources. Fortunately, with the signature last July of the FY 1989 Appropriations Bill adding $5 million in program funding for next year, we are beginning to solve the resource problem. Current resources are stretched to the limit because the workload continues to increase. In response we are further prioritizing the work, so that we focus on the most important items.

Our experiences over the last 16 years have taught us that the regulatory program which Congress created under Section 404 was designed to strike the proper balance among many legitimate competing interests, rather than to maximize decisionmaking efficiency. Such a program, which divides policy making and implementation between two Federal agencies is bound to experience differences in viewpoints as issues are identified and resolved over time. The Corps and EPA have made a great deal of progress in working together to resolve these issues in a way that best serves the public interest. We have additional issues to address, and are committed to exerting our best efforts to resolve those issues in a way that restores and maintains the Nation's water quality, while at the same time recognizing that other essential public interest objectives relating to private property, energy, transportation, economic, and constitutional values must also be protected.

Mr. Chairman, that concludes my statement.

Mr. Rowland. I also understand the supplemental questions from Mr. Oberstar will be submitted to Ms. Hanmer. The questions and responses will appear in the record at this point.

United States
Environmental Protection
Agency

External Affairs (A-100AE)
Washington DC 20460

EPA

Legislative Analysis

JAN 17 1989

Honorable James L. Oberstar
Chairman
Subcommittee on Investigations
and Oversight
Committee on Public Works and
Transportation
U.S. House of Representatives
Washington, D. C. 20515

Dear Mr. Chairman:

Enclosed for your review are answers to the additional questions you submitted on November 29, 1988, to Ms. Rebecca Hanmer, Acting Assistant Administrator for Water, as follow-up to the September 14, 1988, hearing on administration of Section 404 of the Clean Water Act.

I hope this information will be helpful to you and members of the Subcommittee. If there is any further information we may provide you please do not hesitate to contact us.

Sincerely,

A. Henry Schilling
Director
Office of Legislative Analysis

Enclosure

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER RESPONSE TO SUBCOMMITTEE FOLLOW-UP QUESTIONS ON THE SEPTEMBER 14, 1988 GAO-404 REPORT HEARING

Question 1: To what degree do the Guidelines, if used by themselves, provide a certain degree of flexibility while retaining primacy for environmental considerations?

First I will say that EPA strives to protect wetlands within the statutory requirements of the Clean Water Act (CWA) while making decisions which accommodate economic and other public interest factors to the extent that we can be consistent with our environmental mandates. However, the overriding principle is the statutory goal of restoring and maintaining the chemical, physical and biological integrity of the waters of the United States.

The cornerstone of the Section 404 program in terms of environmental protection is the 404(b)(1) Guidelines. The fundamental precepts of the Guidelines are that dredged or fill material should not be discharged into the aquatic ecosystem unless it can be demonstrated that (1) such a discharge will not have an unacceptable adverse impact either alone or when viewed in terms of its cumulative impact on wetlands or other waters, and (2) there are no less environmentally damaging practicable alternatives. The Guidelines further require that no discharge should be permitted unless appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem.

Within the above framework, the level of flexibility afforded the public through the application of the Guidelines is reasonable and in accordance with the CWA. Under the Guidelines, factors such as economics and public safety are given consideration under the analysis of practicable alternatives. An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. Therefore, if an alternative has been demonstrated to be too costly, it is not practicable. Further, a project alternative would not be practicable if it fails to meet accepted safety requirements or specifications.

During Section 404 permit application reviews, non-environmental factors are considered in making a determination regarding project compliance with other statutes and whether the project is contrary to the public interest. However, this weighing and balancing process is not applicable to the process of evaluating project compliance with the Guidelines. Congress established the Guidelines as the sole standard for specifying disposal sites under Section 404 and as such, there are no other specific statutory requirements to consider non-environmental factors.

In summary, EPA views the Guidelines as being flexible within the framework of the CWA objectives. While factors such as economics and safety can be, and are included in the consideration of project alternatives, the Guidelines do not allow for a general balancing of non-environmental factors against the harm to the environment from a discharge of dredged or fill material. In fact, if Congress had anticipated that non-environmental considerations were to be used to outweigh environmental concerns, there would be no need for the 404(b)(2) override which is based on the economic impacts of anchorage and navigation.

Question 2: The Fish and Wildlife Service has suggested that the Corps determine areas or circumstances of general exclusion, where the deposit of dredged or fill material would never be allowed, as the counterpart to general permits. What is EPA's reaction to this suggestion? Could EPA accomplish the same goal using the (b)(1) Guidelines?

It is not clear whether the CWA provides the Corps with the authority to exclude from regulation, or deny authorization to, broad categories of activities prior to submittal of individual permit applications. Given this caveat, however, EPA believes that the development of "general exclusions" or "general denials" by the Corps as a counterpart to the current regional and nationwide permits could become a useful tool for protecting critical aquatic resources. We believe that at least some categories of commercial/residential fills for non-water dependent activities (e.g., parking lots), and some types of impoundments (e.g., of cold water trout streams) may be appropriate to "general denials." In addition, depending upon the provisions developed to allow for exercising discretionary authority to process an individual permit in any given situation, "general denials" could be framed on a broader basis than our examples. EPA has a continuing interest in developing new and innovative means to protect wetlands and other aquatic resources. Consequently, we have indicated our interest in the potential for the "general denial" concept to the Corps of Engineers, and have engaged in some limited discussions with them on the subject during the past year.

It is important to note that a "general denial" would represent a regulatory decision prohibiting particular activities in advance of any permit applications. Under the advance identification process outlined in the Section 404(b)(1) Guidelines, EPA may also be able to accomplish a similar, yet different, result. Advance identification under the Guidelines is an anticipatory strategy which seeks to identify, prior to a permit request, wetlands and other waters of the United States that are both ecologically valuable and vulnerable to conversion. The advance identification process is a cooperative effort requiring joint initiation and coordination by EPA and the Corps. The results of this anticipatory process is an advisory, non-regulatory public information tool (e.g., a map) that identifies areas that are either generally suitable or unsuitable for the discharge of dredge or fill material, along with an explanation of the relationship between the advance identification conclusions and future regulatory procedures and decisions under the Section 404 permitting program.

Question 3: EPA has ceded a substantial amount of its enforcement and decision-making authority to the Corps, for instance, certain jurisdictional decisions, even in Special Case Areas like the bottomland hardwoods area in the Vicksburg District, as well as enforcement actions against unpermitted discharges. Does EPA plan to reassume its full decision-making and enforcement authority at any point in the foreseeable future?

Enforcement - Among the various unique aspects of the CWA Section 404 program, EPA and the Corps share enforcement authority. Section 309 of the Act gives EPA the authority to act, either administratively or judicially, against persons who discharge without a permit and also to enforce against violations of 404 permit conditions. The Corps has explicit statutory authority to enforce against violations of Corps-issued permits. The Corps has also exercised enforcement authority over unpermitted discharges and these actions have been upheld in the courts.

EPA disagrees with the premise that we have "ceded a substantial amount of [our] enforcement . . . authority to the Corps. . . ." Admittedly, only recently has EPA had an active nationwide presence in 404 enforcement. Given the Corps' larger field presence and its role as the federal 404 permitting authority, we believe it is appropriate for the Corps to take an active role in enforcement of the Section 404 program. However, since 1985, the EPA Regions have initiated an increasing number of enforcement actions against 404 violations, using each of the various CWA enforcement mechanisms - administrative compliance and penalty orders, civil and criminal judicial actions, and voluntary compliance.

The number of enforcement actions we initiate each year remains relatively small although we continue to strengthen our 404 enforcement program. The transitory nature of many discharge activities, the limited number of EPA field staff and the large distances between Regional offices and discharge sites, make the detection of violations more difficult. Thus, while EPA remains committed to building an effective 404 enforcement program, it is unlikely that we can increase our field presence and enforcement actions.

EPA and the Corps are close to reaching agreement on a new Section 404 Enforcement Memorandum of Agreement (MOA). The MOA establishes policy and procedures for the effective and efficient implementation of the enforcement authorities given our two agencies for the same program. Under the provisions of the MOA, EPA would not cede any of its enforcement authority to the Corps. Instead, for purposes of effective administration of that authority, the Agreement sets forth an appropriate allocation of enforcement responsibilities between EPA and the Corps. Both agencies will investigate and pursue action against unauthorized discharges. The Corps will continue to handle most unauthorized discharge cases, while EPA may pursue such cases, commensurate with the availability of staff resources. The Agreement contains broad criteria which create an avenue for EPA to pursue those unauthorized discharge cases that we determine are more appropriate for EPA enforcement action. Also, the MOA expressly reserves EPA's right to initiate enforcement actions against permit violations when the Corps declines to take such action. This is current field practice and merely addresses the fact that the Corps, as the permitting authority, should be given the opportunity to enforce against permit condition violations.

Jurisdiction - With regards to jurisdictional determinations, U.S. Attorney General Civiletti issued an opinion in 1979 concluding that EPA, and not the Department of the Army, has the ultimate authority under Section 404 of the CWA to determine the jurisdictional scope of "waters of the United States". As a result of that opinion, a Memorandum of Understanding (MOU) between EPA and the Corps was developed in 1980 that recognized the responsibilities and resources of both agencies, and set forth policies and procedures under which the two agencies would operate in meeting these respective responsibilities. Under the provisions of the MOU, the Corps performs jurisdictional determinations unless EPA designates an area as a special case (i.e., a situation where significant issues or technical difficulties exist concerning the jurisdictional scope of Section 404 waters, the environmental consequences of jurisdiction are significant, and EPA has declared a special interest).

EPA has declared certain types of bottomland hardwood wetlands, as well as other areas, to be special cases pursuant to the MOU, and has performed numerous jurisdictional determinations in these areas. However, there have been individual circumstances where we have exercised our option under the MOU to request that the Corps perform the jurisdictional determination as a result of limited resources, an absence of technical difficulties associated with delineation of the particular site or limited environmental consequences.

Under the MOU, both the Corps of Engineers and EPA perform jurisdictional determinations while preserving EPA's overall responsibility for administering the Act. The MOU is not a delegation of authority from EPA to the Corps, instead, it is a framework under which our limited resources can be efficiently allocated to ensure the greatest protection of our nation's waters. The ultimate responsibility for determining the scope of jurisdiction under the Act and for setting the standards which are to be applied in making a jurisdictional determination remains EPA's, regardless of any arrangements instituted to allocate resources for effective administration of the Section 404 program.

Question 4: EPA's comments to the draft GAO report recommend clarification of EPA and the Corps' respective authorities and responsibilities. Where, in the Agency's opinion, is clarification necessary?

It is our opinion that Congressional clarification in a few key areas would result in significant improvements in the effectiveness of the 404 program in protecting wetlands. A clear message on the roles that both EPA and the Corps are to play in the 404 program would facilitate the resolution of several policy issues.

As stated in our comments on the GAO report, we believe additional clarification on the following issues would be beneficial:

- EPA's authority and responsibility to interpret the 404(b)(1) Guidelines;
- The use of "general denials" in the 404 program;
- The appropriate mechanism (i.e., Section 402 vs. 404) for the regulation of solid waste;
- The status of certain discharges such as the placement of pre-cast concrete pilings as "fill material" for purposes of Section 404.

[Ms. Hanmer's prepared statement and submission for the record follow:]

STATEMENT OF
REBECCA HANMER
ACTING ASSISTANT ADMINISTRATOR FOR WATER
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT
OF THE
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
U.S. HOUSE OF REPRESENTATIVES

SEPTEMBER 14, 1988

Good morning, Mr. Chairman and Members of the Subcommittee. I am Rebecca Hanmer, Acting Assistant Administrator for Water, U.S. Environmental Protection Agency. I am here today at your request to discuss the recent GAO draft report on the Corps of Engineers' administration of the Section 404 program.

My prepared comments this morning will focus on EPA's concerns with the draft GAO report, including important 404 issues that were not fully addressed. The Section 404 program is very complex and I understand how difficult the effort of evaluating its implementation and effectiveness must be. In this respect, the effort exhibited by GAO in preparing the report for your Subcommittee is appreciated. However, based on our review we believe the draft GAO report does not fully reflect the full range of issues, policies and procedures that should be discussed in order to reach appropriate, comprehensive conclusions and recommendations.

Before I discuss the report, I believe it is important to briefly review EPA's responsibilities under Section 404 in order to put my specific responses in the appropriate context. Because several Federal agencies play key roles in program implementation, problem resolution is often difficult. Further, complex scientific issues, an administratively complicated regulatory framework, and a diversity of interests all contribute to the complexity of the program. The following information should be considered in light of EPA's general statutory responsibility of administering the Clean Water Act pursuant to Section 101(d) of the Act.

The Section 404 permit program regulates discharges of dredged or fill material into "waters of the United States," a phrase which includes most of the Nation's wetlands. Generally, the permit program is administered by the Department of the Army, acting through the Corps of Engineers. The Corps is given the responsibility under the Act to coordinate the review of permit applications and, based on this review, to decide whether a particular permit should be issued. The Act requires that in making this decision, the Corps apply the environmental criteria contained in the Section 404(b)(1) Guidelines developed by EPA in conjunction with the Department of the Army.

During the permit review process, EPA provides comments to the Corps that focus on EPA's evaluation of project compliance with the Guidelines. The Corps considers these comments in conjunction with its own evaluation and the comments of other agencies and the public in reaching a permit decision. In those instances where disagreements develop between EPA and the Corps, the decision to issue a permit may be elevated to the Assistant Secretary of the Army under the terms of a Memorandum of Agreement pursuant to Section 404(q). EPA also has the final authority under Section 404(c) to restrict or prohibit the use of a site for the discharge of dredged or fill material after making a determination that such discharge could result in unacceptable adverse effects to certain statutorily-identified resource values.

In addition to evaluating permit applications, a major component of the 404 program is enforcement. Both EPA and the Corps are involved in detecting and proceeding against unauthorized activities and violations of permit conditions. Resolution of enforcement cases may be accomplished through restoration, administrative penalties, and civil or criminal court action.

While Section 404 regulates discharges of dredged and fill material into all waters of the United States, its role in the protection of wetlands engenders the most controversy. This is because decisions on the use of wetlands often involve competition among important values - growth and economic progress, the rights of private property ownership, and the desire for clean and biologically productive waters. EPA strives to protect wetlands within the statutory requirements of the Clean Water Act, while making decisions which accommodate economic and other interests to the extent we can, consistent with our environmental mandates.

EPA has made the protection of wetlands an important Agency priority, in recognition of their contribution to the quality of our environment. The dynamic interaction of land and water that occurs in wetlands results in highly productive ecosystems serving a number of valuable environmental functions, such as providing food and habitat for fish and wildlife and improving surface water quality. Wetlands also provide many economic benefits, including commercial fishing, flood protection, and recreation.

As discussed in the GAO Report, our wetland resources have been significantly reduced and continue to disappear. Loss rates between the mid-1950's and mid-1970's were very high--about 500,000 acres per year. Significant losses of some types of wetlands, bottomland hardwoods in the lower Mississippi Valley and prairie potholes in the upper Mid-West, in particular, present major problems for waterfowl and wildlife populations, and is one factor which can lead to the placement of more species on the threatened or endangered list.

At this time I would like to direct my comments to specific elements in the draft GAO report.

404(b)(1) GUIDELINES

The cornerstone of the Section 404 program in terms of environmental protection is the 404(b)(1) Guidelines. The fundamental precepts of the Guidelines are that dredged or fill material should not be discharged into the aquatic ecosystem unless it can be demonstrated that (1) such a discharge will not have an unacceptable adverse impact either alone or when viewed in terms of its cumulative impact on wetlands or other waters, and (2) there are no less environmentally damaging practicable alternatives. The Guidelines further require that no discharge should be permitted unless appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem.

While the draft GAO report briefly mentions the Guidelines, it does not appropriately describe the key role they play in the overall 404 process. Not emphasizing what we consider the single most important element of the 404 program is a concern of EPA's. The report should clearly recognize that the Guidelines are regulatory in nature and establish an environmental basis for permit denial.

GAO's draft recommendations that the agencies "work" to resolve the Guidelines related problems mentioned above may not result in benefits in terms of wetlands protection. Many hours have been invested by both the Corps and EPA in discussing issues such as mitigation and practicable alternatives. While progress has been made in some important areas, other significant issues remain unresolved. An example of an area where work continues is that of the sequence of mitigation.

Resolving such differences may require clearer definition of EPA's and the Corps' roles in the Section 404 Program. For this reason I am concerned that the draft GAO report does not fully recognize EPA's authority and responsibility to interpret the Guidelines.

ENFORCEMENT

I will preface my comments on Section 404 enforcement by saying that I fully believe that a strong enforcement program is a vital component of an effective regulatory program. Unfortunately, I think EPA would admit that the 404 enforcement program has generally been inadequate in the past. Pursuant to Section 309 of the Clean Water Act, EPA has authority to act against persons discharging dredged or fill material without a Corps- or state-issued 404 permit, and to enforce against violations of State-issued permits. EPA also has authority to enforce against violations of Corps-issued permit conditions.

However, given the Corps' much larger field presence and since it is the permitting authority, the EPA Regions have in practice utilized their limited resources to identify and take action against unauthorized discharges with the Corps taking the lead on enforcing against noncompliance with the terms of Corps issued 404 permits.

The GAO report identifies several key areas that are of serious concern to EPA. These include the low priority placed on surveillance, slow response time to reported activities, inadequate documentation, and an almost nonexistent permit compliance inspection program. In all fairness to both agencies, some of the problems identified in the report may be attributed to factors beyond the control of EPA and the Corps. However, I will admit that some of the specific GAO comments on EPA's enforcement performance may have been justified. In this respect, EPA has dramatically increased its 404 enforcement efforts over the past few years. Beginning in FY 1985, as part of an overall Agency effort to increase the effectiveness of Section 404, EPA has placed increasing priority on strengthening the 404 enforcement program. Since that year, enforcement objectives have been included in the Agency's annual Operating Guidance, and EPA Regions are required to report quarterly regarding their enforcement activities. We have worked to provide better guidance and training to our Regional enforcement staff. Increased emphasis has been placed on the discovery and resolution of unauthorized discharge violations, which has resulted in the initiation of more enforcement actions. One of the major difficulties in the overall Clean Water Act enforcement program was lack of administrative penalty authority. Congress recognized this, and in the 1987 Water Quality Act, gave EPA authority, pursuant to Section 309(g), to assess administrative civil penalties for Section 404 violations, along with similar authority for Section 402. EPA has made significant progress using its new administrative penalty authority since GAO collected data for its report. Also, in an effort to better utilize the resources of both agencies, EPA and the Corps are developing a Memorandum of Agreement on enforcement.

It is important to note that most enforcement actions are extremely time and resource intensive. In addition, any comprehensive surveillance program as recommended by GAO would be both difficult and highly resource intensive. Thus, any significant increase in enforcement activity may result in a decrease in some other program activity.

Improving the enforcement program will require continued emphasis and commitment by both EPA and the Corps. Agreement on the Enforcement MOA should help significantly. Improving performance in the areas of surveillance and compliance inspections and the production of quality, well-documented decisions should become an overall 404 program priority.

CONCLUSIONS

In conclusion, Mr. Chairman, I would like to state that while I appreciate the work that went into the draft GAO report, I am concerned that the report is not, in many respects, a comprehensive evaluation of the Section 404 program. Many important policy issues and problem areas could be more fully addressed, and EPA's responsibilities as authority on key program areas such as the 404(b)(1) Guidelines and jurisdiction are given little if any attention. Anything short of an indepth evaluation of the program with appropriate recommendations will not, in my opinion, increase the effectiveness of Section 404 in protecting wetlands or other waters of the United States. However, documents such as the GAO report can, with appropriate recommendations, serve as the vehicle that prompts significant improvements in the Section 404 program.

I appreciate the opportunity to represent EPA at this hearing and to provide my perspective on the draft GAO report and the 404 program in general. With that, I conclude my formal remarks and will be pleased to answer any questions Members of the Subcommittee may have.

United States
Environmental Protection
Agency

Office of
Public Affairs (A-107)
Washington DC 20460

EPA

Note to Correspondents

FOR RELEASE: WEDNESDAY, MAY 13, 1987

David G. Davis has been named the first director of EPA's new Office of Wetlands Protection. Assistant Administrator for Water Lawrence J. Jensen announced the appointment on May 11. Davis had served as acting director of the office since February.

Declaring that "protection of America's endangered wetlands resources is one of my top priorities," Administrator Lee M. Thomas in October created the new office in the EPA water program to enhance wetlands protection. "This enhanced protection," Thomas said, "will result from the technical expertise and strong enforcement capabilities of the marine, estuarine and groundwater protection programs ongoing in the Office of Water."

Davis brings to the job extensive expertise and experience in wetlands protection. From 1983 until this appointment, he served as deputy director of EPA's Office of Federal Activities (OFA), which administered the wetlands program until the creation of the new, separate office. Prior to that he served as OFA divisic director for wetlands and before that was section chief for wetlands in the water program.

"The EPA wetlands program has significantly risen ir stature and visibility over the last decade," said Jensen, "and I believe that Dave's personal dedication to the goal of wetlands protection, together with his excellent stewardship of the program, has been a key factor in that transition."

Davis holds bachelor's and master's degrees in micrc biology from the University of Illinois and a master's in business administration from the Harvard Business School. He served four years as an officer in the Air Force before joining EPA in 1974 as an economic analyst. From 1982-83, he was director of the EPA Sludge Task Force. Davis has received numerous agency awards, including the 1986 Award for Excellence in Leadership and Management.

R-72

Dave Cohen, Director
Press Division
202-382-5589

EPA Office of Wetlands Protection
Organization/Function Summary

ORGANIZATIONAL UNIT	FUNCTIONS/RESPONSIBILITIES	KEY STAFF
Office of the Director	General program management and administrative support	David Davis, Director (475-7791) Joan Warren, Program Analysis Officer (475-7796) Mary Hinton, Administrative Officer (475-7797) Janice Wingfield, Secretary (475-7791)
Regulatory Activities Division	All section 404 regulatory activities except State program assumption	Suzanne Schwartz, Director (475-7799) Stephanie Noble, Secretary(475-7799)
--Enforcement and Regulatory Policy Staff	- Development of policy, regulations, and most guidance; general 404 program development, management, and regional assistance.	Gregory Peck, Chief (475-8794)
--Elevated Cases Team	- Handling of elevated cases under 404(c) or 404(q); development of related guidance and case-related assistance to Regions.	Kirk Stark, Team Leader (475-8796)
Wetland Strategies and State Programs Division	State program activities and all other (non-404) OWP activities	John Meagher, Director (382-5043) Virginia Fickling, Secretary (382-5043)
--Outreach and State Programs Staff	Work with State, Tribal, and local governments and other Federal agencies; public information and education activities	John Studt, Chief (382-5043)
--Initiatives and Strategies Team	Development of and support for initiatives in such areas as comprehensive planning and water quality certification; support for National Wetlands Policy Forum; Regional special or ecosystem initiatives	John Maxted, Team Leader (382-5043)
--Research and Science Liaison	Development of technical methods and information; liaison with research community	William Sipple, Chief Ecologist (382-5066)

WETLANDS STRATEGIC PLANNING INITIATIVE

BRIEFING FOR THE ADMINISTRATOR AND DEPUTY ADMINISTRATOR

APRIL 25, 1986
10:00 AM

BRIEFING AND BACKGROUND MATERIAL

CONTENTS:

BRIEFING OUTLINE CHARTS

RECOMMENDED GOALS AND COMPLETE LIST OF ALTERNATIVE ACTIONS

ATTACHMENT A - BACKGROUND SUMMARY OF KEY AREAS OF WORK SINCE THE SEPTEMBER, 1985 BRIEFING

WETLANDS STRATEGIC PLANNING INITIATIVE

BRIEFING FOR THE ADMINISTRATOR AND DEPUTY ADMINISTRATOR

4/25/86

OBJECTIVE: 1) REVIEW THE PROGRESS OF THE WETLANDS PLAN

2) GET YOUR AGREEMENT ON THE GOALS AND GENERAL DIRECTIONS FOR WETLANDS STRATEGIC PLAN.

WE WILL COVER THE FOLLOWING ISSUES:

1) MAJOR PROBLEMS
2) RECOMMENDED GOALS AND IMPLICATIONS
3) ALTERNATIVE APPROACHES FOR AN IMPLEMENTATION PLAN
4) NEXT STEPS

MAJOR PROBLEMS

I. SIGNIFICANT LOSSES CONTINUE:

A. NATIONWIDE

- 300,000-450,000 ACRES PER YEAR
- GREATEST LOSSES TO INLAND, FRESHWATER WETLANDS, ESPECIALLY FROM AGRICULTURE (80% OF LOSS)
- DO NOT KNOW EFFECTS OF LOSSES, ONLY DIRECTION OF REDUCTIONS IN VALUES

B. GEOGRAPHIC AREAS OF SPECIAL CONCERN

- HIGH VALUE OR RATES OF LOSS
- DEFINABLE ENVIRONMENTAL EFFECTS

II. GAPS IN KNOWLEDGE

- EXTENT OF DEGRADATION FROM POLLUTION AND LOSS
- CUMULATIVE IMPACTS
- RESTORATION
- ECOLOGICAL RISK ASSESSMENT

III. INCONSISTENT FEDERAL POLICIES

- FEDERAL INCENTIVES/DISINCENTIVES
- FEDERAL ACTIONS/POLICY
- INCONSISTENCIES IN EPA'S ADMINISTRATION OF 404
- STATES CAN PLAY A MAJOR ROLE BUT HAVE NOT

IV. HOW WETLANDS ARE VALUED

- LACK OF AWARENESS OF THE VALUE OF WETLANDS
- CONFLICTS OVER HOW WETLANDS SHOULD BE VALUED
- DIFFICULT TO USE ECOLOGIC OR INTRINSIC VALUES IN RESOURCE MANAGEMENT

PROBLEMS	RECOMMENDED GOALS
SIGNIFICANT LOSSES:	
A. NATIONWIDE	I. RAISE THE LEVEL OF PROTECTION FOR ALL WETLANDS TO MINIMIZE LOSSES
B. IN GEOGRAPHIC AREAS OF SPECIAL CONCERN	II. IDENTIFY, PROTECT, AND RESTORE THE MOST VALUABLE AND VULNERABLE GEOGRAPHIC WETLAND AREAS
GAPS IN KNOWLEDGE	III. REDUCE INFORMATION GAPS REVISE WETLAND STRATEGY AS APPROPRIATE
INCONSISTENT FEDERAL POLICIES	IV. REDUCE INCONSISTENCIES IN FEDERAL POLICIES AND LAWS TO MINIMIZE WETLAND LOSSES
HOW WETLANDS ARE VALUED	V. INCREASE THE UNDERSTANDING AND USE OF ECOLOGICAL VALUES IN PUBLIC AND PRIVATE DECISIONS ON WETLANDS

OPTIONS

1) ADOPT ALL FIVE GOALS AND MOVE AS APPROPRIATE TO ADDRESS EACH ONE

2) SELECT ONLY CERTAIN GOALS OR SETS TO EMPHASIZE SPECIFIC AREAS, (E.G. DEMPHASIZE THE REGULATORY PROGRAM AND PUSH GOALS FOR RESEARCH AND AWARENESS)

3) REWRITE THE GOALS TO MAKE THEM MORE OR LESS AMBITIOUS (E.G. GOAL "I" COULD BECOME "MAINTAIN THE CURRENT LEVEL OF PROTECTION...")

RECOMMENDED GOALS	IMPLICATIONS
I. RAISE THE LEVEL OF PROTECTION FOR ALL WETLANDS TO MINIMIZE LOSSES	• EPA COMMITS TO PLAY A STRONGER NATIONAL ROLE • NEED TO PROTECT AGAINST POTENTIALLY SERIOUS ECOLOGICAL EFFECTS • ENOUGH INFORMATION NOW TO SUPPORT ACTION
II. IDENTIFY, PROTECT, AND RESTORE THE MOST VALUABLE AND VULNERABLE GEOGRAPHIC WETLAND AREAS	• WE CAN PREDICT SERIOUS PROBLEMS IN SPECIFIC AREAS • WE WILL CONCENTRATE OUR EFFORTS ON THOSE AREAS
III. REDUCE INFORMATION GAPS REVISE WETLAND STRATEGY AS APPROPRIATE	• NEED HIGHER PRIORITY ON ECOLOGICAL RESEARCH • LONG TERM STRATEGY WILL CHANGE AS WE GET SMARTER
IV. REDUCE INCONSISTENCIES IN FEDERAL POLICIES AND LAWS TO MINIMIZE WETLAND LOSSES	• WETLANDS PRESERVATION SHOULD BE A CONCERN THAT IS GIVEN GREATER CONSIDERATION IN NON-WETLANDS PROGRAMS • EPA WILL STRIVE FOR AGREEMENT ON WETLANDS OBJECTIVES WITHIN EPA AND AMONG FEDERAL AGENCIES
V. INCREASE THE UNDERSTANDING AND USE OF ECOLOGICAL VALUES IN PUBLIC AND PRIVATE DECISIONS ON WETLANDS	• ECOLOGICAL VALUES ARE UNDERUSED NC • WE PROPOSE TO CHANGE BEHAVIOR BY INCREASING AWARENESS AND USE OF WETLAND ECOLOGIC AND SOCIAL WELFARE VALUES

GOAL	ACTIONS*
I. RAISE THE LEVEL OF PROTECTION FOR ALL WETLANDS TO MINIMIZE LOSSES	1. STRENGTHEN EPA 404 RELATIVE TO COE 404
	2. EFFECTIVELY IMPLEMENT SWAMPBUSTER
II. IDENTIFY, PROTECT, AND RESTORE THE MOST VALUABLE AND VULNERABLE GEOGRAPHIC WETLAND AREAS	1. FOCUS 404 TO IDENTIFY AND PROTECT PRIORITY WETLANDS
	2. INITIATE A JOINT EFFORT WITH FEDERAL AGENCIES, STATES OR BROADER INTERESTS TO IDENTIFY AND ESTABLISH AGREEMENTS TO PROTECT NATIONAL PRIORITY WETLANDS
III. REDUCE INFORMATION GAPS, REVISE WETLAND STRATEGY AS APPROPRIATE	1. PURSUE THE ORD RESEARCH PLAN FOR PRIORITY CONCERNS
	2. COLLECT INFORMATION ON DEGRADATION BASED ON INDICATORS OF IMPACTS AND TRENDS
	3. DEVELOP AN ECOLOGICAL RISK ASSESMENT METHODOLOGY
IV. REDUCE INCONSISTENCIES IN FEDERAL POLICIES AND LAWS TO MINIMIZE WETLAND LOSSES	1. DEVELOP A CONSISTENT EPA POLICY FOR RELEVANT EPA PROGRAMS
	2. PROPOSE CHANGES TO U.S.TAX CODE TO REDUCE INCENTIVES TO CONVERT WETLANDS
V. INCREASE THE UNDERSTANDING AND USE OF ECOLOGICAL VALUES IN PUBLIC AND PRIVATE DECISIONS ON WETLANDS	1. STUDY POTENTIAL FOR INCORPORATING DISPUTE RESOLUTION METHODS INTO CERTAIN WETLAND DECISIONS TO ADDRESS CONFLICTS IN VALUES
	2. INITIATE A PUBLIC AWARENESS PROGRAM TO INCREASE THE CONSIDERATION OF LONG-TERM AND SOCIAL BENEFITS INTO WETLAND DECISIONS

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*This is a preliminary list of possible actions. Refer to attached complete list of Alternative Actions.

NEXT STEPS

NEED DIRECTION FROM YOU BEFORE WE BEGIN TO WRITE AN IMPLEMENTATION PLAN

KEY QUESTIONS:

- WHAT ROLE SHOULD EPA PLAY IN THE NEXT 3-5 YEARS IN THE NATIONAL WETLAND ARENA?
- DO YOU AGREE WITH THE FIVE GOALS? IF NOT WHAT MODIFICATIONS SHOULD WE MAKE?
- DO YOU WANT TO ADD OR DELETE SPECIFIC OPTIONAL APPROACHES?

NEXT STEP IS TO INCLUDE INTERESTS OUTSIDE EPA IN DISCUSSING GENERAL APPROACHES UNDER THE GOALS OR TO FURTHER DEVELOP A SPECIFIC APPROACH

RECOMMENDED GOALS AND
RANGE OF ALTERNATIVE ACTIONS
FOR WETLANDS STRATEGIC PLAN

THIS PACKAGE CONTAINS A BROAD RANGE OF ALTERNATIVE ACTIONS TO ADDRESS EACH OF THE FIVE RECOMMENDED GOALS. THE NEXT PHASE FOR THE WORKGROUP WILL BE TO FOCUS ON AND FURTHER DEVELOP THE MOST FEASIBLE ACTIONS.

GOAL I:

RAISE THE LEVEL OF PROTECTION FOR ALL WETLANDS TO MINIMIZE WETLAND LOSSES

PROBLEM:

Wetland losses continue nationwide

- 300,000 to 450,000 acres lost per year
- Greatest losses inland, freshwater wetlands
- Highest losses due to agriculture - 80%

ALTERNATIVE ACTIONS:

Within EPA

* 1. Strengthen 404 program to make EPA's role more equal to the COE. Actions such as:
    - streamline 404(c) to make it parallel to COE permit
    - consistent interpretation of key criteria in 404 (b)l guidelines
    - more targeted enforcement

2. Improve the ability of States to protect wetlands through NPDES certification and assumption of 404

Outside of EPA

* 3. Provide technical assistance to USDA to implement the 1985 Farm Bill/Swampbuster

4. Target education and state program development towards wetlands vulnerable to agriculture activity not covered by Swampbuster

5. Propose legislative changes to extend 404 to cover agricultural activities

6. Work with private wetland constituencies: technical support, enlist aid in enforcement (watchdog), etc.

7. Seek legislation to implement a national program for development of state management plans and statutes for inland, freshwater wetlands (CZM model)

GOAL II:

IDENTIFY, PROTECT, AND RESTORE THE MOST VALUABLE AND VULNERABLE GEOGRAPHIC WETLAND AREAS

PROBLEM:

Wetland losses continue in geographic areas of special concern:

- high rates of loss
- significant ecological value
- highly vulnerable with current patterns of growth or conversion

ALTERNATIVE ACTIONS:

Within EPA

* 1. Focus the 404 program to identify and protect priority wetlands (proactive approach) through increased use of advance identification, 404(c) and targeted enforcement.

Outside EPA

2. Joint effort with other Federal agencies (COE, AGR, FWS, NMFS, NOAA, FEMA, FHWA, EPA) to identify and establish agreements to protect national priority wetlands.

* 3. National targeting effort with broad group of interests (Federal, State/local, private interests) to identify and establish agreements to protect wetlands of national concern.

4. Seek national appropriation to identify, plan, and manage specific geographic wetland areas through cooperative program with States (Chesapeake Bay Model).

GOAL III:

REDUCE INFORMATION GAPS THROUGH AGGRESSIVE RESEARCH PROGRAM; REVISE WETLANDS STRATEGY AS APPROPRIATE

PROBLEMS:

Gaps in knowledge:

- Extent of degradation
- Cumulative impacts
- Restoration - is it possible?
- Ecological Risk Assessment

ALTERNATIVE ACTIONS:

Within EPA:

* 1. Pursue current ORD Research Plan for priority concerns (water quality, mitigation/restoration, cumulative impacts)

2. Reorder research priorities to address issues of cumulative impacts and mitigation as highest priorities

* 3. Develop eco-risk assessment methodology (covering impacts from activities as well as from chemicals)

* 4. Collect information on degradation based on indicators of impacts and trends

Outside EPA:

5. Expand interagency coordination on wetland research

6. Encourage private research on creation/restoration of wetlands

GOAL IV:

REDUCE INCONSISTENCIES IN FEDERAL POLICIES AND LAWS TO ENHANCE WETLAND PROTECTION.

PROBLEMS:

Inconsistencies in policies and laws regarding wetlands:

* Federal incentives/policies inconsistent

* Federal actions harming wetlands
* Lack of commitment to ecological issues

ALTERNATIVE ACTIONS:

Within EPA

* 1. Develop and implement Agency-wide consistent policy towards wetlands in all relevant EPA programs.

Outside EPA

2. Seek legislation to put all 404 authority under EPA

3. Monitor other Agencies' actions on wetlands (NEPA, E.O. 12498 plans, implementing regs, Excutive Order on wetlands)

4. EPA take lead on coordination effort among Federal agencies involved in 404 and wetland activities

* 5. Propose changes to tax code to reduce inconsistency in treatment of wetlands.

GOAL V:

INCREASE THE UNDERSTANDING AND USE OF ECOLOGICAL VALUES IN PUBLIC AND PRIVATE DECISIONS ON WETLANDS

PROBLEMS:

Values

- Lack of awareness of wetland functions
- Fundamental conflicts in how wetlands are valued
- Difficult to use ecologic or intrinsic values in wetland decisions

ALTERNATIVE ACTIONS:

Within EPA

1. Educate EPA managers on wetland values

Outside EPA

2. Initiate education of federal decision makers on wetland values, location of critical wetlands, and the impacts of their actions on wetlands

* 3. Use formal dispute resolution processes in wetlands decisions (i.e. permit review and mitigation decisions)

4. Increase the consideration of long-term and social benefits of wetlands in wetland decisions

* 5. Mount a national effort to heighten public awareness of wetland values in conjunction with other agencies and private groups

ATTACHMENT A

BACKGROUND MATERIAL

BACKGROUND MATERIAL

There are four major issues we have concentrated on since our last briefing in September:

Understanding the Impacts of Cumulative Wetland Losses

1985 Farm Bill - Agricultural Losses and Swampbuster

Degradation from pollution (rather than fill)

EPA's Commitment to Ecological problems

HOW DO WE UNDERSTAND AND PREDICT THE EFFECTS ON THE ECOSYSTEM OF INDIVIDUAL LOSSES?

- Losses of wetland acres indisputably cause reduction in wetland functions such as: flood and erosion control, wildlife habitat, water quality.
- Balancing these losses with other demands on wetlands is difficult. Ecological risk assessment is in its infancy. ORD has a 10-year schedule to develop a method based on individual chemicals in an ecosystem, no plan now for ecosystem (resource-based) assessments.
- We hosted a conference of wetlands ecologists and systems biologists in February. They agreed that within specific geographic areas (e.g. lower Mississippi bottomlands, Nebraska's rainwater basin) we can describe the current status of an ecosystem and predict the effects of future losses. We cannot do this on a national scale.

AGRICULTURAL LOSSES AND SWAMPBUSTER

- Major losses of wetlands (possibly 80%) due to agricultural activities, many exempted under 404.
- 1985 Farm Bill has major new conservation programs
  - no agricultural subsidies to farmers who drain a wetland
  - conservation reserve for highly erodible soils.
- Big possibilities for NPS control and wetlands protection
  - needs to be well-implemented, maybe with EPA technical assistance
  - if USDA (SCS) fails, we could stand to lose big opportunity to demonstrate ecologic protection when linked to another national priority (surplus reduction).

- We currently have a study underway to identify areas where wetland losses to agriculture will continue due to low participation in subsidy programs.

- Role of perverse incentives in tax policy becomes much more critical if subsidy question is removed from the cost of conversion equation.

DEGRADATION FROM POLLUTION RATHER THAN FILL IS POTENTIALLY A MAJOR PROBLEM

- Most wetland information focuses on losses due to fill

- Selinium contamination in Kesterson NWR brought degradation issue to forefront

- Recent FWS survey of refuges found 20% with serious problems; 10 of the 431 required immediate action

- We don't know the extent of degradation

- Restoration of degraded wetlands is a new, uncertain science but may be key to the future by bringing degraded areas back to useful purposes.

EPA'S COMMITMENT TO ECOLOGICAL PROBLEMS

- "Timid" implementation by EPA has limited the effectiveness of our laws.

- 404 was established with a balance between EPA and the COE and yet:

  - COE program is highly funded, highly decentralized, highly policy driven, and highly effective at carrying out their development agenda

  - EPA program is low priority, centralized and has lacked clear senior management support; the Regions inconsistently administer the program and Headquarters is reluctant to delegate

- COE regulations presume proposed projects are in the public interest, burden of proof is showing otherwise

- 404(c) has been seen by EPA as a "nuclear weapon" - not as a legitimate check or proactive tool. Its use is very resource intensive.

- Mixed signals since at least 1980 on the interest in Wetlands e.g.
  - V.P. Bush's Regional Relief Task Force, #1 target = Wetlands, 1982 regs and budget cuts
  - Heightened Congressional interest in wetlands
    - -- 1985 Farm Bill
    - -- Multi-million dollar OTA study.
- Other sections of CWA have not been used for wetlands
  - No biological water quality standards
  - State certification is not the local land use control it could be in all States
- Other EPA programs - CERCLA, RCRA, NPDES, Construction Grants, have not adopted consistent wetland policies.

WETLANDS STRATEGIC PLANNING INITIATIVE

DRAFT

PROBLEM ASSESSMENT

EPA - Office of Policy, Planning & Evaluation
Environmental Results Branch

May 1986

WETLANDS STRATEGIC PLANNING INITIATIVE
OUTLINE

Page

I. INTRODUCTION 2

II. ENVIRONMENTAL PROBLEM: LOSS AND DEGRADATION OF WETLANDS 2
  A. Magnitude of Problem 2
    National Scale
    Degradation of Existing Wetlands 3
    Loss by Geographical Distribution 4
    Future Trends 4
  B. Impacts of Wetland Losses 5
    Wetland Functions 5
    Wetland Value Determinations 5
    Impacts of Loss/Degradation on Functions 6

III. WHY ARE WE LOSING WETLANDS? 7
  A. General Issues 8
  B. Causes of Conversion: Activities & Incentives 9
    Agricultural Activities 9
    Commercial Development 11
    Public Works/Management Programs 12
    Other Causes 13

IV. EXISTING PROGRAMS TO PROTECT WETLANDS 14
  A. What's Being Done to Protect Wetlands? 14
  B. Section 404 CWA: Corps and EPA 14
  C. EPA: Other Related Authorities 17
  D. Department of Agriculture 17
  E. Section 10 Rivers and Harbors Act 19
  F. Interior 19
  G. National Oceanic & Atmospheric Administration 20
  H. Federal Emergency Management Agency 20
  I. Tax Codes 21
  J. Requirements for All Federal Agencies 21
  K. State and Local Programs 22
  L. Private Sector Programs 23
  M. Wetland Mitigation Banking 23

V. CONCLUSIONS 25

VI. APPENDIX A - Summary of Wetland Functions and Values A1

VII. APPENDIX B - References B1

VIII. OPTIONS BRIEFING FOR THE ADMINISTRATOR (APRIL 25, 1986)

IX. WETLANDS STRATEGIC PLAN: BRIEFING FOR THE ADMINISTRATOR (NOVEMBER 4, 1986)

INTRODUCTION

In the first half of this paper we describe the loss and degradation of wetlands and assess the impacts of these losses (why we care). Next we examine the primary causes of wetland conversions and look at what programs encourage and discourage these activities. The major issues arising from this problem assessment are:

1) In spite of many wetland laws, including the major Federal wetland protection program (Section 404 Clean Water Act), there are gaps in wetlands protected leading to continued losses.

2) There is no consistent EPA or federal wetland policy. In fact many programs operate at cross purposes.

3) The 1986 Farm Bill may have significant short term impacts in reducing wetland losses.

4) The most appropriate scale for identifying and addressing impacts of wetland loss is regional by wetland type.

Penultimately, we examined and recommended goals and a range of alternative actions for a wetland stategy. (See Options Briefing for the Administrator April 25, 1986.) The final steps include developing an implementation plan and conducting a public dialogue on wetland issues. (See Wetlands Strategic Plan: Briefing for the Administrator November 4, 1986.)

ENVIRONMENTAL PROBLEM: LOSS AND DEGRADATION OF WETLANDS

Magnitude of Problem on National Scale

Wetlands comprise only about 5% of the total area of the lower 48 states and about 60% of Alaska. Yet they are a significant national resource in terms of the functions they perform. The Fish and Wildlife Service (FWS) estimates that from an original 215 million wetland acres in the continental U.S., only 95 million remain in 1985 (over 200 million acres are present in Alaska). These wetlands consist of approximately 95% freshwater inland wetlands and 5% coastal saltwater wetlands. On the whole, the public has a better understanding of saltwater wetlands. In addition there are better protection mechanisms in place than for freshwater wetlands.

Wetland losses have been significant. By 1975, an estimated 54% of the nation's original wetlands remained. One major limitation to comparing wetland acreage lost over time is that many of the inventories used different wetland definitions varying the baseline of existing wetlands. The best available data comes from the National Wetland Trends Study (NWTS). It uses a statistical sampling method and does not go beyond the mid-1970's. During the period between the mid-1950's and mid-1970's, the NWTS estimates a loss of 11 million acres. Ninety-seven percent of the total losses occurred in inland, freshwater wetlands. Although some significant localized losses are still occurring in coastal wetlands, the rate of loss is only 25-30% that of freshwater, inland wetlands. Of these losses, approximately 87% were caused by agricultural activities. While an esitmated 8% of the total losses were caused by urban development. The causes broken into fresh and saltwater wetlands are as follows: (1983 NWTS)

Freshwater
Primary Causes of Loss

Agriculture	80%
Impoundments and Large Resevoirs	8%
Urban Use (fill)	6%
Deep Water (farm ponds, water supply, flood control, recreation)	4%

Saltwater
Primary Causes of loss

Deepwater (Channels, harbors, marinas, etc,)	55%
Urban Use	22%
Dredge-Material Diposal or Beach Creation	14%

Degradation of Existing Wetlands

In addition to absolute loss, many wetlands have been degraded to the point where the functions they perform are impaired or even destroyed. The problems associated with degraded wetlands are pollution, subsidence, large changes in salinity, decreasing water table, flooding and loss of vegetation.

Although there are currently no national statistics on the amount of wetland degradation that has occurred, several documented examples exist. A recent study by USFWS found that of 431 National Wildlife Refuges, 10 were in need of immediate remedial action and 74 had significant problems requiring additional study and possible action. The Kesterson National Wildlife Refuge is an example.

Located in California's San Joaquin Valley, the Kesterson National Wildlife Refuge contained evaporation ponds for irrigation water drainage. After high mortality, birth defects and reproductive failures amoung the area's waterfowl were investigated, selenium poisoning was pin-pointed as the cause. The refuge was subsequently closed to receiving irrigation water. The selenium contamination in Kesterson led to the examination of 23 additional wildlife refuge sites.

The Chesapeake Bay is another area where severe wetland degradation has taken place. Agricultural and urban drainage carried streams of nitrogen and phosphorsous that nourished algal blooms. The increased turbidity and decreased oxygen aquatic vegetation substantially. Recent efforts by Maryland, Pennsylvania and Virginia have helped counteract and begin to reverse these trends.

Loss by Geographical Distribution

Trends of wetlands loss occurring in local or regional areas may be masked by the national trend data. The regional estimates, as with the national data, do not cover the past decade when Section 404 and other wetland protection laws came into effect.

WETLAND TYPE	REGION	ACREAGE LOST	PRIMARY CAUSES
Inland Emergents	Prairie Potholes (Minnesota, N&S Dakota)	>9 million * >4 million *	Agriculture
	Sandhills Rainwater Basin (Nebraska)	>93,000 *	Agriculture
	Everglades (Florida)	>2 million (1900-73)	Agriculture
Forested Wetlands	Bottomland Hardwoods (Lower Mississippi Valley)	1.7million LA 1.7million MI 1.5million AK	Agriculture/ Timber & Public Works
	N.C. Coastal Pocosins	>500,000	Agriculture and Peat Mining
Coastal Estuarine	Florida Louisiana Texas	26,422 ** 25,000 **	Deepwater Conversions & Urban Devpt.
Riparian	Western states	Uncertain	Grazing Policy

* from presettlement
** past hundred years

Future Trends

There are currently conflicting estimates of current and future wetland losses including 300,000 acres per year by the Office of Technology Assessment (1982) and 480,000 acres per year by the Department of Interior (1985). The future wetland loss trends are difficult to predict because no comprehensive evaluation of wetlands exist. The percentage of wetlands remaining nationally is depicted in Figure 1.

IMPACTS OF WETLAND LOSSES

Wetland Functions

Before determining appropriate steps to take regarding the fate of wetlands, it is important to examine what functions wetlands serve and why people are concerned about preserving them. The primary wetland functions are:

- wildlife and habitat
- flood storage conveyance and desynchronization
- erosion control/sediment trapping
- pollution control
- cycling of nutrients and atmospheric gases
- cycling of water
- cultural
- economic (consumptive)

See Appendix A for descriptions of these functions.

WETLAND VALUE DETERMINATIONS

There are two aspects to determining the value of wetlands which need to be examined in this paper; 1) assessing the function of an area and 2) comparing that function to other values. We also have to consider the feasibility of ecological risk assessment and how, for the present, we respond to our inability to calculate and interpret these risks.

Functional Assessments

Numerous systems have been developed to assess wetlands functions. Many are in use today in different parts of the country. In 1983, Paul Adamus proposed a system for the Federal Highway Administration which looks at 12 functions and assesses the relative significance of that function in terms of high, medium, and low. The Adamus Method has been widely accepted and is currently undergoing refinement by the Army COE and FHWA to improve the accuracy and application of the system. In particular, the system is being tailored to fit specific regional differences through a series of workshops across the country.

While still under review, the "wetlands method" generally has been embraced as the best available technique to assess the functional value of an individual wetland. To date, EPA has not adopted Adamus, although we are supporting the Regional workshops.

Value Assessments

Value assessment is a more confounding problem. Basically, wetlands vary tremendously in function, availability, cause of loss and public opinion across the country. Attempts to place a value on wetlands have rarely been successful. A recent review of

Percentage of Wetlands Remaining

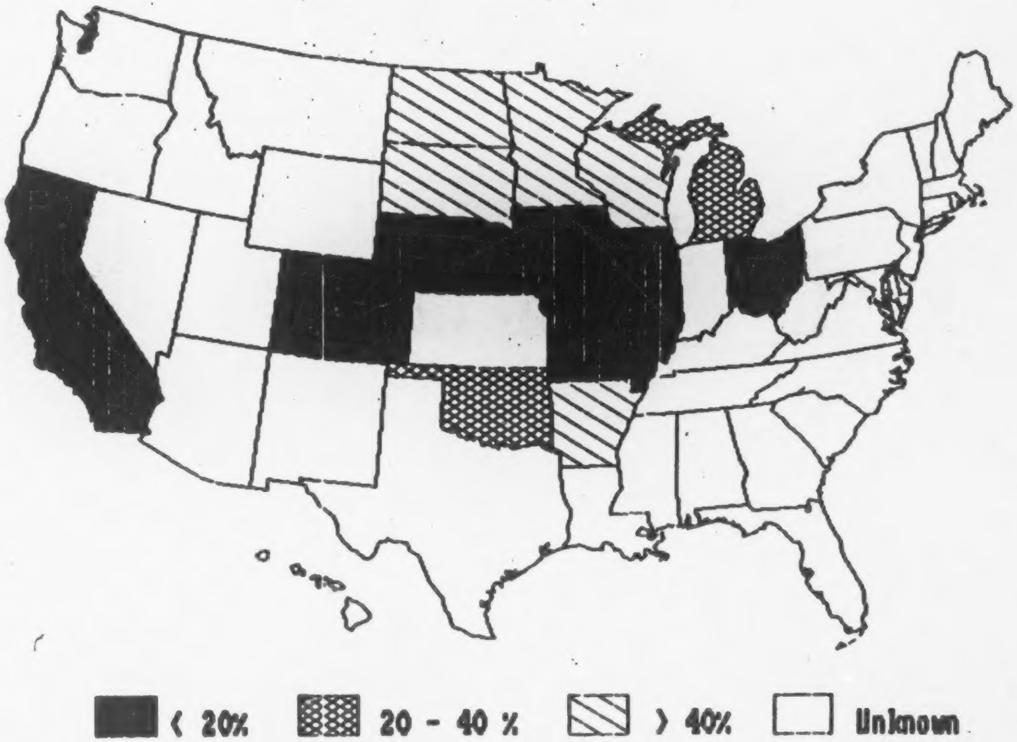


Figure 1

all the available literature on socio-economic valuation of wetlands (Shabman and Batie, draft 1985), found that while the valuation methodology is well developed, the tools have not been correctly applied. They concluded that no "off-the-shelf" valuations are currently available. In addition, while we may be able to develop socio-economic values for specific wetlands and areas, no valid methods exist for aggregating values on a national scale. In particular, the lack of understanding of the impacts of cumulative losses may tend to under-value wetlands which play a role in larger system functions. Finally, personal values are different for each of us. A determination of "what society wants" is necessarily reflected in surrogates such as laws, opinion polls and referenda. No one answer clearly applies to all wetlands.

Eco-risk Assessment

Value assessment also implies an understanding of ecological risk assessment. Currently there is no method available to make eco-risk assessments either for ecosystems in general, or specifically for wetlands. The primary problem is lack of understanding of the mechanics of ecosystem functioning in the presence of pollution. Linear cause and effect models are not adequate to explain the complexities of an ecosystem. We also do not understand ecosystem recovery. The recovery of a system may not universally mirror the loss because of changes in species mix and food sources that may occur under periods of stress. This concept, hysterisis, is currently being explored under a cooperative agreement with UC/Berkeley. While the streams currently being studied are a difficult modeling task, the interrelationships within a wetland add to the complexities of this modeling problem.

Rivers and lakes can sustain limited fluctuations in pollutant clarify levels. Although not yet predictable to a high degree of certainty, will recover when the loading decreases. However wetlands may present irreversible losses. Once filled, a wetland is dead. It does not "recover." Even degraded wetlands rarely return to their original level of productivity and diversity.

IMPACTS OF WETLAND LOSS AND DEGRADATION

The significance of losing more than 100 million acres of wetlands has been well demonstrated in numerous region-specific case studies. Drawing these studies into a national assessment is very difficult due to the lack of a common standard or denominator. There are so many variations in the significance of wetland functions for different wetland types and regions, that national generalizations mean very little. Current scientific knowledge of the ecological impacts of wetland loss is limited to site specific and anecdotal descriptions of changes.

For instance, the Kissimmee River in Florida illustrates the downstream negative impacts resulting from destruction of a large wetland system. The Corps of Engineers transformed the one-hundred-mile river which feeds into Lake Okeechobee into a fifty-mile straightcut channel destroying many acres of riparian wetlands in the process. The result has been accelerated euthrophication and deterioration in the water quality of the lake which serves as a water supply. In addition, the losses of evaporative surface has been linked to changes in Florida's rain cycle and increased hazards from fires as well as crop loss. Efforts are now underway to remove the channle and restore the wetlands.

Another site-specific case in British Honduras illustrates the impacts of removing vegetation on soil erosion and flood dissipation. These coral islands which have a large percentage of wetland vegetation (mangrove forests) experienced very little damage from a recent hurricane and actually accumulated new material on the vegetated islands whereas islands which had been cleared of natural vegetation were severely eroded.

Although there is much more information on site-specific impacts, this scale is too narrow because it precludes estimates of cumulative impacts from piecemeal wetland losses. Generally, losses of wetlands lead to reduction in wetland functions. While we are not able to describe the impacts nationally, we are able to look at a region, such as the lower Mississippi Bottomland Hardwoods and develop a function which establishes the relationship between wetland losses and impacts on wetland functions.

Gosselink and Harris (1986) are working to define cumulative impacts of wetlands losses in the lower Mississippi Valley Bottomland Hardwood (BLH) area as part of EPA's BLH project. They have been able to develop curves to demonstrate change in important BLH functions as a relationship of acres cleared. These curves of individual functions and losses can be aggregated into one curve to display the overall impacts of losses on values. Based on the knowledge of losses to date they can use the curve to estimate where we are regarding the health of the system and the potential for future trends in reductions of ecological functions.

EPA hosted a workshop on January 28, 1986 on ecological impacts of wetland losses. The participants included wetland ecologists, systems biologists, wildlife biologists, and public officials representing a diversity of disciplines and geographic regions. The group concluded that, while no off-the-shelf assessment of impacts is available, the approach proposed by Gosselink and Harris should be applicable for other areas of concern such as North Carolina Coastal pocosins, Prairie Potholes, and Northwest Riparian wetlands.

WHY ARE WE LOSING WETLANDS?

Many factors combine to influence decisions to degrade or convert wetlands to other uses. One pervasive issue is that individuals making decisions on the use of property containing or adjacent to wetlands are frequently unaware of the functions wetlands serve and the benefits from maintaining them in a natural state. This lack of awareness is especially prevalent for freshwater wetlands. Furthermore, regardless of an individual's awareness, the benefits of preserving a wetland frequently accrue to a much larger group than the land owner, whereas the costs and lost opportunities of not developing the wetland fall solely on the land owner.

A second cross-cutting factor is that problems of wetland loss and degradation often are the result of many individual decisions to drain, fill or degrade small parcels of wetland for agricultural or urban/commercial development. The marginal negative impacts of these isolated decisions may not be very significant or easily quantified when compared to the benefits of development which are quantifiable and immediate. The cumulative negative impact to a region or watershed is not taken into account in these piecemeal decisions.

A third confounding issue is the conflict between private property rights and the public values of wetlands. Intervention into the use of private property is generally accepted from a more local level of government where the affected owners have a direct opportunity to affect the land use planning process. In some cases, property owners welcome land use restrictions such as zoning to prevent incompatible uses of adjacent property and preserve qualities of adjacent land which enhance the value of their own property.

The issue becomes more complex for regulations which restrict property use on a national level such as the 404 program. Regulations on land-use may constitute a "taking" under extreme circumstances and the owner must be paid just compensation. However, these circumstances creating a taking are not well-defined.

If wetlands are an integral part of the nation's water resources, then they should be treated as a public resource with greater restrictions on use than those allowed on private land. Recent court decisions have supported this view. Under the "Commerce Clause" of the U.S. Constitution, essentially all wetlands can be construed as "waters of the United States" as defined by the Clean Water Act. This not only asserts 404 jurisdiction over these waters but could be construed to extend the Clean Water Act goals of "preventing loss of biological, physical and chemical integrity" to all wetlands. This approach has not been adopted to date. Wetlands have been treated historically as real estate. Unlike lakes and rivers, which are rarely owned or sold, most wetlands have been viewed as land, and are often purchased and taxed on the value of the land after draining or filling it.

Two recent New Hampshire Supreme Court decisions support the notion that wetlands fall into the realm of more stringent restrictions on use. They declared that denying permits for particular uses of wetlands did not constitute a taking (Claridge v. New Hampshire Wetlands Board (NHWB) and NHWB v. Marshall). The Court developed a two-tiered test to determine if refusing a permit to fill a wetland constitutes a taking: 1) if the denial defeats any substantial and justified expectation of the owner concerning the use of the property; 2) whether the denial poses an "unreasonably onerous burden" on the landowner.

Causes of Conversion: Activities & Incentives

The major causes of wetlands conversions and degradation can be divided into four categories: agricultural activities; commercial/ residential development; public works / management programs; or other causes.

These activities are encouraged by a complex combination of private market and public sector incentives. Federal programs that encourage or indirectly affect wetland conversions conflict with programs that protect and preserve wetlands. There is no uniform policy to guide Federal, state and local agencies which make decisions that affect wetlands.

While agricultural conversions clearly results in the greatest loss to wetlands, it is difficult to isolate which public and/or private factors have the greatest impact on individual decisions affecting wetlands. For example, in some areas, such as the lower Mississippi, soybean prices and tax advantages are most important. In others, subsidies or personal values regarding "unproductive" lands may drive losses. The following section provides a summary of the primary incentives driving wetland conversion for each category of conversion.

Agricultural Activities

Policy Incentives

Federal agriculture programs have focused historically on the expansion of agriculture production. In order to attain this goal, the Department of Agriculture initiated a number of technical assistance, cost-sharing and commodity price support programs to expand the supply of croplands. Many of these programs served to encourage the conversion of wetlands to croplands by decreasing the cost of drainage and increasing crop prices. According to DOI estimates, approximately eighty percent of all continental U.S. wetlands losses occuring between the mid-1950's and 1970's was due to drainage of wetlands for croplands. Tiner (1984) reports that agricultural conversion of wetlands remains a major threat in six of nine threatened wetland areas: 1) South Florida's palustrine wetlands, 2) Prairie Pothole emergent wetlands, 3) Nebraska's Sandhills and Rainwater Basin, 4) Lower Mississippi Bottom Land Hardwoods, 5) North Carolina's pocosins, and 6) Western riparian wetlands.

Farm subsidy programs influence wetland conversion by increasing crop prices and subsidizing the cost of wetland drainage. In specific, commodity price support programs, which have served to maintain farm sector income, increase the returns a farmer receives for his crops. In the case of wetlands with lower cropland potential, greater returns increase the likelihood of wetland conversion to cropland. In 1984, 56 percent of all cropland was enrolled in commodity price support programs accounting for federal payments of more than 5 billion dollars (Bureau of the Census, Federal Expenditures by State for Fiscal Year 1984, March 1985.)

Technical assistance and cost-sharing programs serve to reduce the cost and risk of converting wetlands to cropland. Crop insurance, with federal payments of $645 million in 1984, serves to decrease financial risks thereby increasing the incentive a farmer to bring both wetlands and other lands into production. Historically, the Soil Conservation Service also provided extensive technical assistance to install drainage systems. In some cases, this assistance was augmented with federal subsidized loans from the Farmers Home Administration at rates, in 1982, 2.4 percentage points below unsubsidized rates (Heimlich, 1985). Tiner (1984) estimates that 9 out of 10 wetlands in Nebraska Rainwater Basin were drained or filled with federal technical and cost-sharing assistance. SCS funds for technical assistance have decreased substantially in recent years. However, the technical expertise required for wetland drainage has been transferred to farmers bypassing the need for SCS drainage experts. In addition, many farmers now own their own drainage equipment.

In addition to agricultural programs, federal income tax provisions to clear and drain wetlands serve to reduce farm income tax payments. In specific, farmers are allowed to deduct from their taxable farm income a percentage of their: 1) land clearing costs; 2) land shaping costs--construed as soil and water conservation activities; and 3) interest payments on loans for clearing and drainage costs. In addition, farmers can take advantage of rapid depreciation schedules, investment tax credits, and reductions in capital gains from sale of improved farmland. All of these deductions serve to decrease wetland conversion costs (Heimlich, 1985).

Little is known about the national impact of federal income tax provisions on wetland conversions. A number of state and regional studies reveal the significant incentives these taxes can have in wetland conversion. In Montana, capital gains and investment tax credit provisions reduced the break-even resale price of rangeland from $85 to $27 per acre. Federal tax credits and rapid depreciation schedules amounted to tax savings for installation of subsurface and surface drains in Minnesota of 18 percent and 40 percent, respectively. Tax savings for the conversion of bottom land hardwoods in the Lower Mississippi were estimated at approximately 30 percent of total costs.

More difficult to assess than wetland conversion are the decreases in the quality of existing wetlands due to agricultural activities. Federal farm subsidy programs that lead to conversion of wetlands can also lead to wetland degradation. Technical assistance has increased the use of groundwater for irrigation purposes. In the Sandhills of Nebraska, increased groundwater pumping has lowered the water supply for surrounding wetlands.

Agriculture conversion of wetlands has occurred primarily through the installation of surface and subsurface drains and the clearing of wetland hardwood trees. While national data on the installation of farm drainage systems for wetlands and nonwetlands show a decrease in annual installation, care must be taken when interpretating the data at the regional level. Pavelis estimates that between 1955 and 1975 surface drains were installed at a rate of approximately 850,000 acres per year. Much of this drainage occurred in the Midwest, Lower Mississippi River Valley, and the Atlantic and Texas Coasts. Between 1975 and 1980, this installation rate had fallen to about 426,000 acres per year. According to the OTA report, the installation of new surface and subsurface drains is currently at a standstill in many parts of the country; however, wetland drainage in the Lower Mississippi River Valley, Florida and the Southeast still occurs at a rapid rate.

Recent research by USDA's Economic Research Service suggests that for some regions the increases in wetland conversions costs combined with decreases in suitable wetland areas have lead to the national decrease in drainage installation. In addition, depressed crop prices have also dampened the incentive for wetland conversion.

Commercial Development

On the Federal level, homeowner deductions of mortgage interest on second homes makes development in and around wetland areas for recreation less expensive. State and local property taxes based on "best and highest" use, rather than current use, create economic incentives to convert wetlands to activities which generate a higher market return.

Many Federal and state policies subsidize the cost of development by producing the necessary infrastructure such as sewage and utility hookups, access streets, and dredging of harbors and channels. Some development in wetlands would not occur without these government services.

There are many factors which encourage the expansion of buildings and other commercial activities into wetlands. Growth pressures in expanding urban areas create incentives to develop surrounding wetland areas. In some cities wetlands are the only undeveloped areas. Many coastal areas are experiencing an increasing demand for water-related recreation and commercial activities such as marinas, harbors, and second homes.

As urban areas expand, particularly in the arid west and southwestern regions, the need for potable water increases. As cities expand their water supply, they may negatively affect surrounding wetlands by pumping groundwater at a faster rate than it recharges or by diverting surface water from wetlands.

High prices for peat (produced in wetlands) encourage increased peat removal. High oil and gas prices create incentives to expand exploration and drilling. These activities are frequently located in or near wetlands and may negatively affect them by pollution discharges and subsidence due to extraction. High timber prices encourage increased activity in forested wetlands. Road building and soil erosion associated with timber harvest may negatively impact wetland quality. At this time, both timber and oil and gas prices are decreasing, but future increases will increase impacts on wetlands.

Public Works / Management Programs

Water Programs

Federal water programs have a very significant impact on wetlands. The construction activities of the Army Corps of Engineers , Bureau of Reclamation, Soil Conservation Service, and Federal Energy Regulatory Commission produce large initial impacts from construction and operation facilities. The activities include channelling of rivers; dams for flood control, energy and recreational water supply; impoundments; and irrigation chanels.

The impacts from these projects are particularly significant in western riparian wetlands and the lower Mississippi Valley. Often deep-water areas are created at the expense of shallow wetland systems. Flood control efforts have a significant impact on wetlands by removing the source of water, nutrients and sediment. Federal agencies have built more than 2,000 dams and spent greater than $54 billion on water resource projects. A recent DOI study of BLH has demonstrated a direct link of Public Works to wetlands conversions.

The EPA's Construction Grant Program which provides funding assistance for wastewater treatment plants may have significant indirect impacts on wetlands. The availability of wastewater treatment capacity may encourage industrial and other development in or near wetlands which may not occur otherwise due to poor percolation quality of soils for individual septic tanks.

Land Management Policies

Interior's Bureau of Land Management (BLM) and Agriculture's Forest Service both manage public lands with multiple uses according to the principle of sustained yield. The Forest Service issues livestock grazing permits for 105 million acres of land in 36 states. The BLM manages grazing on 170 million acres mainly located in 17 western states. The ranchers exert significant pressure on these agencies to sell large numbers of grazing permits because they cost much less than private grazing fees.

Many riparian habitats have been negatively affected by overgrazing on these lands. Cattle are attracted to river floodplains where they feed on saplings and prevent the next generation of growth. Large numbers of cattle trample the near-shore vegetation and destroy stream banks. Overgrazing leaves exposed soils which are washed downstream causing sedimentation problems and changing the shape of the stream channel and surrounding wetlands. Federal Highway Program The Federal Highway

Administration manages a very large program responsible for 1.2 trillion miles of road. Highway construction has direct impacts on wetlands such as absolute loss, changes in flow and drainage patterns, and construction related pollutants. There are also indirect impacts from growth induced by improved access, and from farmers use of road drainage outlets to drain adjacent wetlands.

Little data are available directly relating these road projects to impacts on wetlands. DOT does require that states follow certain procedures designed to protect wetlands, but variations in state implementation are not well-documented.

Other Causes

Traditional Disposal Sites

Private uses of wetland areas have included both inadvertant and purposeful discharges of wastes such as pesticides and nutrients from sewage and agricultural runoff, sediments from dredging and upstream activities, and disposal of sewage, hazardous and household wastes. Wetlands perceived as "unproductive" areas were readily available dumpsites for wastes.

Sea-Level Rise

Coastal wetlands are affected by changes in tidal elevation and sediment supply. Sea level currently rises very slowly (one foot per century). At this rate, marshes keep pace by slowly expanding inland through sedimentation and peat formation as the sea level rises. A net loss of coastal wetlands to open water can occur if the sea rises more rapidly than marshes are formed. The National Academy of Sciences estimates that the sea level could rise several feet by the year 2100 due to a global warming trend caused by large concentrations of CO2 and other gases in the atmosphere.

This faster rate, combined with coastal development which hinders wetland expansion inland (bulkheading to protect property, buildings, pavement, etc.) may lead to conversion of many coastal wetlands to open water. These trends are not easily quantified or proven, but are a factor to consider in coastal wetland decisions.

Drought

During years of less than average rainfall, some wetland types, particularly isolated wetlands such as prairie potholes, may temporarily dry up. These wetlands are vulnerable to conversion during dry periods because they may not be properly identified as wetland areas.

EXISTING PROGRAMS TO PROTECT WETLANDS

What's Being Done to Protect Wetlands?

There are many laws and programs designed to protect wetlands. However, it is evident from the diversity and different focuses of the programs that there is not a consistent National policy guiding the approach to wetlands protection. The percentage of wetlands that are protected nationally are shown in Figure 2. The most powerful program currently in effect is section 404 of the Clean Water Act . Also, the recently passed Farm Bill legislation has the potential for significantly reducing the agricultural conversions of wetlands. These two major wetland protection tools and their effectiveness will be discussed in detail. This section also includes other relevant Federal policies; examples of state and local government programs; and private efforts to give a sense of the extent and variety of wetland protection activities.

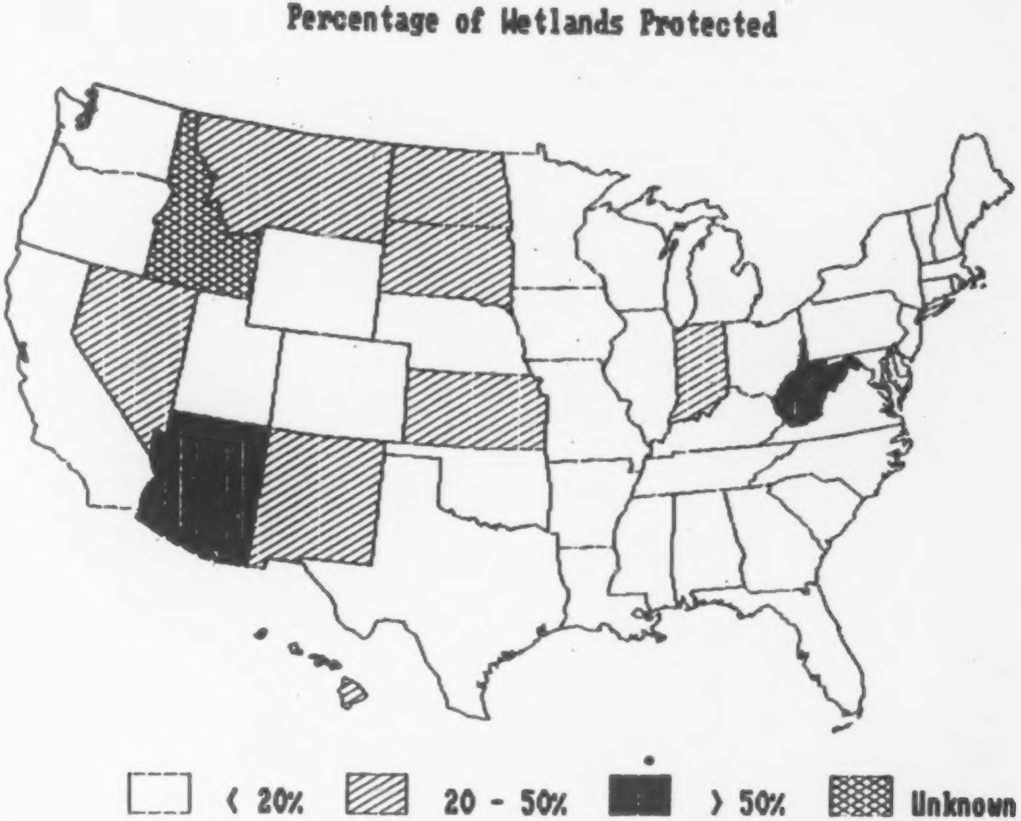
Section 404 Clean Water Act : Corps and EPA

Section 404 forbids discharges of dredge or fill material into the waters of the U.S. without a permit from the Corps of Engineers. This legislation is potentially the most powerful federal tool currently in use to protect wetlands. Judicial history of this act has established the geographical jurisdiction to cover all wetland types. However, several problems in implementation of the law continue to plague the program.

1. The intent of Congress in writing 404 is subject to interpretation. 404 is an administratively difficult law. Responsibilities are split between Army, Interior and EPA. The Federal government has failed to state clearly its priorities for wetlands preservation leaving much discretion and sources of disagreement between EPA, COE, DOI and the regulated community.

2. Major activities resulting in losses are exempted or ignored under 404. Drainage (primarily for agriculture) and Federal water supply and navigation projects account for close to 90% of all losses. (Some of these activities are covered under other laws.) Once a wetland is drained, by diversion of the water, pumping or any other method that changes the area to "fast" land, it is no longer a wetland and can be altered or used as any other dry land. Overpumping of groundwater in marginal agricultural areas can lead to the same result.

3. We do not know the effects of historical losses from a national or regional ecological perspective. Our approach to wetlands has been a case-by-case balancing of impacts against development proposals. While we have been able to characterize wetland values for assessment of the "quality" of individual wetlands, we have not assessed the effects of historical losses to place cumulative or future losses in perspective.



Percentage of Wetlands Protected

Figure 2

4. The Army Corps of Engineers and EPA continue to have major policy differences stemming from differences in agency mandates. These conflicts contribute to delays in decisionmaking and are consuming large amounts of time and energy to resolve.

5. EPA has been "timid" in exercising its authority under 404. Section 404 gave EPA strong tools. However, since 1980, the COE has set the course for the program.

There are several difficult areas of concern:

- The program historically has been a low priority for Regional resources. There are 56 Regional positions which review 6400 permits a year. Enforcement cases, 404(q) elevations, and 404(c) actions are a significant drain on resources and the Regions are forced to leave these actions for only the most egregious cases. We have, on the average, 1-2 enforcement cases a year, per Region.

- Each of the five 404(c)'s attempted to date have taken an average of one work-year to complete. EPA's interpretation is that we must make a strong case of "adverse environmental impact," requiring special research and analysis. This proof is beyond what is needed for other actions under 404 and restricts the number of 404 (c)s that EPA can complete.

- The program is inconsistently administered across Regional offices. Regional programs have adopted the various personalities of their leadership because of the lack of specific goals or a detailed implementation manual. While this is part of our Regional Office system, leadership changes. The program becomes unpredictable to the regulated community while significant differences in results and approach exist across Regions.

6. The public awareness of wetlands values and regulations is still low. While the scientific, environmental, and government communities have all come to some greater understanding of wetlands values, there still appears to be a lack of public appreciation of the "greater good" wetlands serve or of the laws and regulations which affect them. For example, under the COE general permit, actions in wetlands under 10 acres require a predischarge notification. COE has testified that they recieved only 68 such notices in the first 8 months of last year.

OFA has prepared a two year strategy to address many of these concerns. The strategy included developing guidance on 404(c), mitigation and boundary definition and developing a priority list for wetlands. EPA has also had some success with COE in expanding the grounds and means of elevating problems under 404(q). However, the lack of resources and continued pressure from COE and others to limit the scope of 404 seriously hinder its implementation.

EPA: Other Related Authorities

Clean Water Act - Since wetlands are considered waters of the U.S., they are subject to NPDES discharge permits, must meet minimum technology requirements and comply with state water quality standards. However, few states have water quality standards for wetlands. Florida, South Carolina and Wisconsin have developed biological water standards that may be applicable to wetlands protection. EPA recently recognized the need for national guidance specific to wetlands and is developing water criteria guidelines.

CERCLA and RCRA - for regulating dumping of hazardous wastes into wetlands and for cleaning up these wastes when on the National Priority List. Wetlands and their special values are currently not taken into account.

FIFRA and TSCA - Section 20 provides for monitoring of air, soil, water, humans, plants and animals. To the extent that monitoring, conducted under FIFRA or any other statutue, reveals an environmental problem which can be directly related to pesticide use, FIFRA provides authority to deal with the particular chemical in question.

Department of Agriculture

USDA has a Water Bank Program that purchases 10-year easements from landowners to protect wetlands and adjacent uplands. This program protected 185,000 wetland acres and 480,000 adjacent acres of land. Congress anticipates the "swampbuster" provisions of the 1985 Farm Bill to accomplish this type of protection so they did not fund the program for 1986. The percentage of wetlands that would be profitable to convert to croplands are shown in Figure 3. This map uses 1985 data and farm subsidy levels for this prediction.

1986 Farm Bill

The passage of the "Swampbuster" section of the 1986 Farm Bill (Subtitle C--Wetland Conservation) has created the potential for the preservation of vast acres of inland freshwater wetlands. The Bill specifies that any farmer who drains a wetland on his or her property will forgo the right to any and all federal farm subsidies. Historically, estimates of agricultural conversion of wetlands have been up to 87 percent of all wetland loss. While Swampbuster represents a strong deterrent to agricultural drainage of wetlands, its success depends upon 1) how USDA implements the legislation, 2) the importance of federal farm subsidies to farmers contemplating wetland conversion, and 3) the price of crops. EPA and DOI have already begun to assist USDA in the implementation of Swampbuster. The potential for federal farm subsidies to act as a deterrent for wetland conversion is currently being evaluated.

The elimination of federal farm subsidies for farmers who drain wetlands represents a new and potentially powerful, yet untested, tool for preserving wetlands. In many agricultural regions of the country, federal farm subsidies represent a significant portion of new farm income. The Swampbuster and its goal of wetland preservation is premised on the belief that these farmers would rather forego the opportunity to bring more land (i.e. wetlands) into production than forego farm subsidies.

In order to test this hypothesis, EPA has the following analysis underway. Those areas where farm subsidies are a significant percentage of net farm income are identified at the county level using Census data. These data are then combined with county level data on wetland acres from USDA's 1984 National Resource Inventory. The combination of these data sets would identify the at-risk wetland areas. That is, it would identify the agricultural wetland areas where low participation in federal farm subsidy programs increases the potential for wetland conversion.

Percentage of Wetland Acres
Profitable to Convert to Croplands

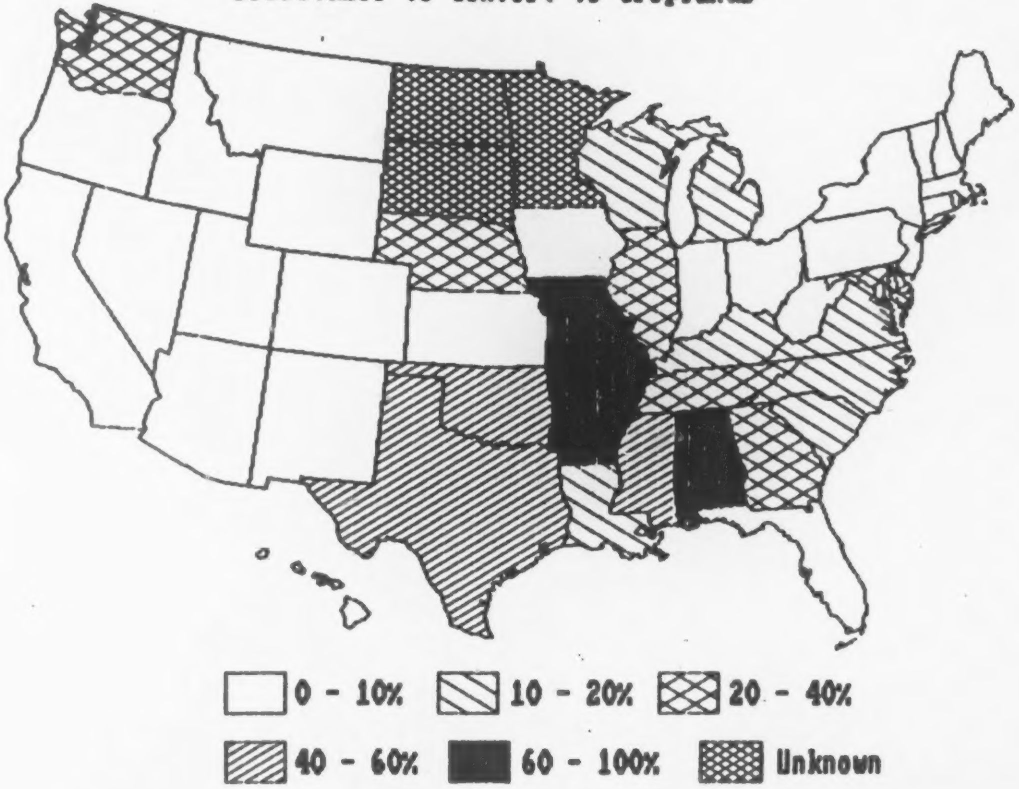


Figure 3

It is already possible to identify a number of wetland regions where Swampbuster is not likely to deter wetland drainage. In the Sandhills of Nebraska much wetland drainage occurs inadvertently due to groundwater drawdown from irrigation. Swampbuster would offer no protection for these wetlands. In the lower Mississippi River Valley the predominant crop is soybeans, which generally do not receive federal farm subsidies. Wetland clearing and drainage for soybean fields is a continuing practice in this area and would not likely be deterred by Swampbuster. In contrast, the Prairie Pothole region in North Dakota and Minnesota, where heavily subsidized wheat and sunflower seeds are grown, could show a major decrease in wetland drainage due to Swampbuster.

Once wetlands have been assessed for their vulnerability, in regard to Swampbuster, it may be possible to redirect EPA and State resources to those localities where Swampbuster is likely to be ineffective. For example, it will be possible to identify areas in the Lower Mississippi River Valley where soybean farming is contributing to wetland drainage. Educational programs could be directed at these areas; conservation groups could increase their purchases; and EPA could expand its identification of critical wetlands slated for protection under the 404 program.

In the past, one of the major obstacles to an effective 404 program has been limited resources in the face of almost 100 million acres of wetlands spread over the continental U.S. In these years of decreasing federal resources, Swampbuster--if effectively implemented--may offer a mechanism for shrinking the universe of wetlands needing regulatory protection to a manageable size. To repeat a well worn phrase, Swampbuster represents a window of opportunity that could give EPA a chance to develop and implement an effective wetlands strategy for those wetlands most at risk in the immediate future. The effectiveness of subsidy penalties may be limited on a longer time frame. Future efforts to eliminate or reduce all subsidies or changes in crop prices leading to increased demands for domestic and agricultural products could close the window of opportunity. This requires that we develop a long term approach to protecting wetlands from agricultural conversions which is not so intimately linked to agricultural prices or commodities.

In addition to assessing at-risk wetlands in agricultural regions, it is also possible to consider at-risk urban wetlands in a similar fashion. We know that residential and commercial development are major factors in the conversion of urban area wetlands. Given this fact, it is possible to combine county level wetlands data for urban areas with county level data on residential and commercial construction activity. Those urban wetland areas experiencing large amounts of construction activity would be targeted for more indepth review of 404 permit applications.

Section 10 Rivers and Harbors Act

The Rivers and Harbors Act requires Army COE authorization for any excavation in navigable water and inland waterways. This geographical jurisdiction is more limited than the CWA and does not cover all wetland areas. However, it covers more activities in wetlands because it is not limited to point sources or discharges. In certain cases, this act may add to the coverage of the 404 program by restricting wetland development for activities that are exempt under 404.

Interior (Fish and Wildlife Service)

Interior's Fish and Wildlife Service (FWS) has a variety of programs which contribute to wetland protection including several programs to aquire wetlands. The wetlands they focus on for aquisition are primarily ones which are suitable for supporting migratory wildfowl. FWS programs include: National Wetlands Inventory; Federal Aid in Fish and Wildlife Restoration Program (FAFW); Migratory Bird Conservation Fund; Fish and Wildlife Coordination Act; Endangered Species Act; and Mid-Continent

Waterfowl Management Project.

FWS established the National Wetlands Inventory project in 1975 to collect the necessary resource information to make wetland decisions. The program includes mapping all U.S. wetlands projected to be completed by FY 1995. Currently, mapping of 55% of the lower 48 states and 16% of Alaska are expected to be completed by FY 1988 The Inventory includes one-time estimates of gains, losses, and quality of each wetland area mapped.

The FAFW is a grant-in-aid program to help states protect and enhance fish and wildlife resources and to increase public enjoyment of these resources. Funding comes from excise taxes on sporting arms, archery equipment, and handguns. The money is used to aquire and maintain wildlife areas. An excise tax on fish equipment and bait provides revenue for fish management and research projects.

FWS also purchases wetlands under the Migratory Bird Conservation Fund. The fund is used to aquire migratory bird refuges and waterfowl breeding sites. FWS raises the revenue from the sale of duck stamps each year to wildfowl hunters. FWS aquired 268,719 acres of waterfowl habitat (predominately wetlands) from 1977-1980and 112,941 acres from 1981-1984. An estimated forty percent of FWS wildlife refuges are wetlands and almost all of them contain wetland components.

The Fish and Wildlife Coordination Act requires federal agencies to consider the impacts of their water resource development projects on wildlife resources. FWS and National Marine Fisheries Service have review authority over these projects. The act authorizes agencies engaged in water resource projects to aquire lands for the purpose of conserving and enhancing fish and wildlife. The Corps and Bureau of Reclamation have established many federal and state waterfowl management areas under this law.

Wetlands may not be converted if the action will have an adverse impact on a species classified as endangered by FWS. Under the Endangered Species Act, at least 30 wetland-dependent species are protected. This Act provides one of the strongest authorities FWS has to protect species habitat , including wetlands.

Finally, an example of a collaborative wetland protection program initiated by FWS is the Mid-Continent Waterfowl Program. The state Department of Natural Resources and several private groups contribute funds to this effort. This project is an attempt to restore drained wetlands in Minnesota. FWS is leasing and restoring 2000 acres of former wetlands drained for agriculture. The landowners must maintain nest cover in the adjacent upland areas (non-use grass, delayed harvest of alfalfa, no-till small grain).

National Oceanic and Atmospheric Administration (NOAA)

NOAA has jurisdiction over implementing the Coastal Zone Management Act which was designed to encourage states to develop comprehensive planning and management programs for their coastal zones. The states are to develop plans and programs which the Federal agency approves and helps to fund.

Federal Emergency Management Agency (FEMA)

FEMA administers a National Flood Insurance Program which subsidizes insurance costs at an estimated 30% of actual costs in floodprone areas. In return, local communities must develop and administer standards to minimize risks in flood areas. Some of these requirements have included protection for wetland areas. There are no analytical studies identifying the extent to which this subsidy encourages development that would not otherwise occur in wetlands. GAO cites environment and recreational attraction as the driving incentive for people moving to floodprone areas. The subsidy portion of this program is scheduled to be phased out by 1988. Therefore the negative impacts of the program may not be very significant.

Tax Codes: Internal Revenue Service

The Tax Reduction and Simplification Act allows an individual to deduct the value of a gift of land , lease, option to purchase, or conservation easement (granted in perpetuity) from their income tax. The deduction may equal up to 50% of the doner's adjusted gross income. This provision encourages donations of wetland areas to government entities or non-profit groups for the purpose of preservation.

Some state and local property tax laws use lower rates of taxation for wetlands and other open space rather than taxing on the basis of best and highest use to encourage preservation of the areas. However, if the tax codes also provide low rates for farmland to encourage its preservation, agricultural conversions of wetlands may actually increase. The tax code also causes incentives for wetland converions (see previous section). These approaches often are in conflict in areas where conservation and conversion occur simultaneously.

Requirements Affecting All Federal Agencies

Executive Orders

There are two major Executive Orders designed to enhance wetland protection. Executive Order 11990 - Protection of Wetlands requires that Federal agencies minimize destruction or degradation of wetlands to preserve or enhance the natural and beneficial values of wetlands.

Executive Order 11988 - Flood Plain Management requires Federal agencies to avoid direct or indirect support of flood plain development whenever there is a practicable alternative. The intent of the order is to reduce property loss and the threat to human welfare as a result of flooding, and to foster and preserve the beneficial values of wetlands.

National Environmental Policy Act (NEPA)

This Act requires Environmental Impact Statements (EIS) for all Federal or federally approved activities which will have significant environmental impacts. The EIS process provides a public forum in which agencies consider impacts and alternatives or mitigations to lesson these impacts. However, the EIS process does not mandate agencies to take actions to protect environments such as wetlands.

Coastal Barrier Resource Act

Federal expenditures are very limited for selected coastal barrier regions including some wetland areas along the Atlantic coasts. Federal agencies may not fund or aid activities incompatible with protecting the identified sensitive coastal areas.

State Programs

State and local governments have traditionally played an important role in wetlands decisions through local and regional land use planning and control. These local jurisdictions can also tailor their programs to the more unique aspects of a wetland type or problem. Many state and local governments have taken the initiative to expand beyond the Federal level of wetland protection in an attempt to fill the protection gaps. All coastal states with the exception of Texas have regulations to protect coastal wetlands. Only seven states have adopted legislation to specifically protect inland wetlands. The actions they take fall into: laws/ordinances; taxation; aquisition; education; and research. This section identifies some of the innovative or successful wetland programs in each category.

Several states have legislation and ordinances which attempt to go beyond the protection provided by the Clean Water Act. For instance, Oregon law covers "removal" from wetlands while the Clean Water Act covers removal activities only if the material to be removed is toxic. Small freshwater wetlands in King County Washington are lost at a slower rate than adjacent counties due to the local sensitive lands ordinance.

Minnesota has two special tax provisions to create an incentive to preserve rather than develop wetlands. Areas designated as wetlands and not already receiving other compensation are exempted from local property taxes. In addition, a landowner who agrees not to drain wetland property may receive tax credits (1/2 to 1%) of the market value of the tillable land.

The city of Anchorage has an aquisition clause in its wetland management plan. Wetlands designated "preservation" in the plan will be purchased within a certain time period. Other forms of preservation by cities and states include conservation easements; leasing with agreement of owner not to develop; and acquisition with owner using the property during his/her lifetime.

Many states have developed some type of public awareness and education program to inform citizen's of wetland functions and protection programs. One particularly innovative program is Kentucky's "adopt-a-wetland" program. Citizens' form a Water Watch group for a particular wetland, stream, or lake. The program includes education on wetland management and conservation, and initiates projects appropriate to particular problems at the "adopted" wetland.

Most states and local governments do not have sufficient resources and personnel to conduct extensive research on wetland issues. However, there are a few state research programs such as Maryland's effort to improve scientific information on the Chesapeake Bay (marsh creation, submerged aquatic vegetation, wetlands as freshwater resevoirs).

Private Sector Programs

Private efforts to protect wetlands spring from a broad spectrum of interests ranging from environmental groups to hunter/fishers to industrial corporations. Currently there is no comprehensive figure for how many acres of wetland are under private protection [the DPRA contract is attempting to come come up with something.] However some examples of the larger efforts are: Ducks Unlimited - 3 million acres in the U.S. and Canada, spent $34-37 million in 1984 on wetland creation and restoration; Nature Conservancy - 1 million acres in full title or easement, National Conservation Project currently raising $50 million for public/private wetland protection effort; Audubon - total of 500,000 acres of sanctuaries, the majority of which have a wetland component.

These private groups engage in a wide variety of wetland protection efforts: acquisition or purchase of easements for wetland areas; public education on the values and functions of wetland ecosystems; activism such as lobbying, litigation, and involvement in local land use decisions; creation and restoration of wetlands; and research. The national non-profit groups such as Nature Conservancy, Audubon, and Ducks Unlimited have the most significant impact on acquisition of wetlands. There are many regional and local interest groups which focus primarily on litigation, lobbying, and education to protect wetlands. An example of a wetland restoration effort is the non-profit group Wetlands Research Inc. They are attempting to restore a former 450 acre marsh in Illinois (where 99% of the original wetland acreage has been destroyed).

In addition to the private groups, there are many public/private efforts such as the Maryland Environmental Trust, California State Coastal Conservancy, and FWS cooperative efforts. These groups combine government funding and technical expertise with citizen boards and private funds to carry out more extensive wetland protection efforts.

Some private corporations are taking initiatives to develop wetland creation and restoration techniques. For instance, Agrico Chemicals has a 70-year phosphate mining interest in four tributaries in North Carolina. They have devloped an extensive research program to study and create wetlands in order to replace those those they will propose to destroy from mining.

Wetland Mitigation Banking

Wetlands mitigation banking is a system to help offset unavoidable wetland loss. This procedure establishes a banking system where credits and debits can be assigned. Credits are obtained by improving or enhancing a specific wetland area. Participants can then use these credits to help off-set wetland loss that results from a permitted activity. If a proposed activity complies with permit guidelines but requires mitigation impacts, an applicant may propose using credits from a mitigation bank.

Wetland mitigation banking has been used successfully in both the private and public sectors. Tenneco Oil Company has established a 5,000 acre bank in Louisianna. In California, the Port of Los Angeles and the Port of Long Beach have both established mitigation banks to help off-set wetland losses along their port areas. The Virginia Department of Highways and Transportation established an 11 acre coastal salt marsh bank.

Although only ten banks currently exist or are in the planning stage, the concept has great potential to help preserve wetland areas. It provides an incentive for participants to maintain or improve wetland areas to be used as future credits. Furthermore, the bank provides an ideal mechanism to keep track of both the number and status of individual wetlands and to monitor the success of mitigation plans.

Mitigation banking in wetlands is still a very new concept. Although a Memorandum of Understanding has been used to establish 9 of the 10 banks, uncertainty exists over the ability to enforce the agreements. Other questions arise about the length of time wetlands will be maintained.

CONCLUSIONS

Several major conclusions can be drawn from the information in this paper:

- Substantial acreage of the nation's original wetlands has been lost and losses continue at a high rate.
- Degradation of existing wetlands is significant for anecdotal cases, but little is known on the extent, or severity of the problem.
- The rate of loss and the ecological effects vary in different parts of the country and for various reasons.
- Greatest losses are occurring in freshwater, inland areas primarily due to agricultural conversions. Coastal losses have been reduced, but continue at a lower rate.
- The "swampbuster" provisions of the new farm bill may reduce agricultural conversions and shift the focus back to commercial and residential impacts.
- Wetlands are integral to the functioning of natural ecosystems.
- Wetlands degradation and conversions have a negative effect on the functions of wetlands.
- There is no national metric to describe the effects of historical losses on the reductions in functions. Case studies for specific regions, types of wetlands, and specific functions can document effects of historical losses and estimated future losses.
- The current web of federal, State and local controls has slowed, but not significantly reduced the rate of losses of wetlands. No consistent policy exists.
- While no clear answer exists about the ideal number of wetlands, there are clear conflicts between the many different programs designed to regulate the loss and preservation of wetlands.
- EPA has no established procedure for developing ecological risk estimates.

APPENDIX A

WETLAND FUNCTIONS AND VALUES

Wetlands play a critical role in both the natural and human environment. Extensive scientific research on the hydrological and ecological functions of wetlands has established this fact. However, a scientific basis does not yet exist for evaluating the specific roles of each and every wetland. The purpose of this section is to review the major wetland functions and to offer examples, where they exist, indicative of the social values of these functions.

Wildlife and Fisheries

Wetlands serve many vital roles as unique habitats and as highly productive "factories" of organic material necessary for the reproduction and survival of numerous plant and animal species.

Habitat: Wildlife and fisheries habitat, one of the best understood wetland functions, is widely recognized in land use decisions. Wetlands are a permanent or temporary habitat for at least fifty game and fur species and hundreds of non-game mammals, birds, fish, reptiles, and amphibians. Coastal and brackish water wetlands serve as swawning and nursery grounds for a large portion of commercial and recreational fish species. For example, it has been estimated that two-thirds of the commercial finfish harvest on the Atlantic Coast consists of estuarine dependent species.

Wetlands also serve as a "last refuge" for many upland species driven from their natural environments by development. As frequently the last areas to be built upon, wetlands are the last wild areas in many urban and developed areas. For example, although black bears in Pennsylvania normally live in dry forests, in many parts of the state bogs and other wetlands are their only remaining habitat.

Nearly all freshwater and many saltwater fish require, at certain stages in their life, wetland habitat for spawning, protection from predators and the elements and for feeding. Similarly, waterfowl, furbearers and amphibians are dependent upon wetlands for protection from predators and the elements, and for feeding. Specific wetland types fulfill specialized habitat needs such as tall perches near open water for bald eagles. Wetlands also serve as vital resting spots for many migratory waterfowl and songbirds.

Food Chain Support: Wildlife and fish productivity is closely linked to the vast quantities of organic material and detritus (plant material decayed to particulates) produced in wetlands. In terms of organic material, from which all other aquatic food sources originate, wetlands are comparable in productivity to the most intensely farmed lands. Gene Odum found that a Georgia salt marsh produces 10 tons of organic material per acre per year compared with 4 tons from our most fertile hayfields. The productivity of wetlands is enhanced by the water flowing through it. Water flow is used to circulate nutrients and waste products so that organisms direct their energy to growth.

Detritus often serves as an important food source for other systems beyond the boundaries of the wetland. Tidal movements and flooding transport it to connecting wetlands, lakes, streams, and coastal waters.

Flood Storage Conveyance and Desynchronization

Wetlands tend to moderate the downhill flow of water to reduce peaks in runoff. This function helps prevent erosion and flooding. According to a U.S. Geological Survey on Wisconsin's wetlands, flood flows may be reduced up to eighty percent in lower basins with substantial wetland areas as opposed to basins with little or no wetland areas. Approximately half of the reduction in peak flood flows occurs due to the first five percent of wetlands in the basin. Thus, wetland destruction in a region with relatively few wetlands and lakes will have a greater impact on increased flooding. The ability of a wetland to hold flood water varies with its hydrological characteristics such as basin storage capacity.

New development in wetland areas can increase the potential damage from flooding. Wetland development, where flooding is a natural phenomena, exposes people who move into the area to a greater hazard. In the past, the federal government has spent million of dollars to protect people and property after development has occurred in flood prone areas. The Corps of Engineers studied the Charles River Basin in 1976 to determine the role of wetlands in reducing floods. They estimated that a reduction in natural flood storage from development of areas wetlands could lead to annual property damage of excess of $2 million per year.

Erosion Control

Wetlands protect shorelines from erosion. Coastal wetlands serve to dissipate tidal and wave energy, thus reducing impacts of the ocean further inland. In order to control shoreline erosion, millions of dollars are spent annually on the construction of jetties and bulkheads, Along a river, inland waterways provide a place for the water to be spread and slowed by vegetation. Wetland vegetation also traps sediment and removes it from the slow-moving water column. This function may prevent rapid filling of downstream reservoirs and lakes, thus avoiding dredging expenditures. Again, development of wetlands may increase hazard to inland areas through higher and more frequent storm tides.

Pollution Control

Wetlands can help improve water quality. They function like a solar-powered tertiary treatment system to purify waste water from urban uses. Tinicum Marsh in Philadelphia was found to remove nutrients such as nitrate, phosphate, and ammonia as the waste water flowed through it. Water quality is also improved by the tendency of wetlands to remove toxic chemicals, heavy metals and radioactive isotopes out of the water column by sequestering them in anaerobic sediments.

The impact of this function on other wetland functions has not been determined. Use of a wetlan for both waste disposal and aquaculture would not be possible. There is some debate over the amount of pollutants removed by wetlands on an annual or multi-year cycle. In some years (e.g., in high rainfall years) wetlands have released more of certain pollutants than they trap. Although the "source or sink" debate continues, at a minimum, wetlands help to even out the rate of pollutant flow to minimize loadings into waters during high periods of flow such as the spring and summer.

Cycling of Nutrients and Atmospheric Gases

Just as flora plays a criticalrole in cycling carbon dioxide and oxygen, wetlands serve a role in the cycling of major nutrients and in atmospheric stability. There is a great deal of scientific uncertainty surrounding the significance of wetlands in the larger interactive system. In the anaerobic zone of wetlands, organic matter is decomposed much more slowly than with anaerobic processes. Organic matter accumulates in this anaerobic zone releasing many gas by-products in the atmosphere. These anaerobic processes re-introduce gaseous elements into the atmosphere such as nitrogen, sulfur, carbon, and methane, which could otherwise go out of circulation by leaching deep into sediments. Although this function is acknowledged by scientists, there is great uncertainty as to what impacts the destruction of wetlands would have on nutrient cycles and atmospheric stability.

Cycling of Water

Wetlands play a role in the water cycle. They have a high rate of evaporation and contribute significantly to atmospheric moisture because of their shallow open nature. Changes in the amount of wetlands in an area may affect this cycle. One example is the Kissammee River watershed. It is hypothesized that wetland losses in this area have contributed to reductions in average rainfall and to a related rise in fire hazards.

Wetlands can play important roles in the recharge of local and regional aquifers used for drinking water, irrigation and industrial applicators. Discharge of water from wetlands plays an equally important role by maintaining stream flow during low flow periods for the support of plan and animal life, and for drinking and industrial uses. In the past, a higher value for recharge than discharge has been suggested. A panel convened by the U.S. Fish and Wildlife Service strongly recommended that discharge and recharge be treated with equal merit.

Cultural

Historically, most people in the United States perceived wetlands very negatively. They were seen as nuisances and even as places harboring "evil". Such unfavorable perceptions led to extensive draining and filling. Public attitudes towards wetlands have changed towards a greater awareness of the recreational, aesthetic and educational functions of wetlands. While this function is most difficult to quantify, it may be the most significant public value in many areas (such as urban areas).

Some of the recreational functions associated with wetlands include: hiking, birding, canoeing, camping, nature photography, and painting. Wetlands serve educational roles for studying a particular species in its natural setting, an ecological system in its entirety, or a site of archaelogical or historic interest. Aesthetic functions, such as a visually diverse landscape, are integrally tied in with other human non-consumptive uses because they can enhance or detract from the experience. Wetlands can provide important "viewsheds" from developed areas maintaining a sense of open space and linkage to the natural and historical environment. For example, a nuclear power plant on the Hudson River was once turned down because the site was depicted in a famous painting from the 19th century; the plant and steam plume would have destroyed this treasured view of the river. In most cases, however, we are unable to attach a "value" to these functions (See Value Assessments, in the next section).

Commercial Wetland Functions

Wetlands produce or serve as habitate for numerous items of commercial value. Wetlands can be harvested for timber, peat, fish or fur species. For timber production, one study estimates that over 82 million acres of forest exist in wetlands. Normally these areas receive little management for enhancing timber production. However, limited timber harvest should not conflict significantly with wetland functions. Clear-cutting, of the sort occurring in the bottomland hardwooes of the Mississippi alluvial plan, will reduce or eliminate most wetland functions.

Peat is also harvested from wetlands for horticultural uses, though it can also be used for energy production. In 1982, 730 thousand tons of peat worth $16.7 million were harvested. This represents a 39% increase in quantity of peat harvested since 1970. Peat formation occurs over thousands of years. Its removal can significantly alter or eliminate a wetland.

Wetlands provides habitat for fish and fur species that can be commercially harvested. While link between wetlands and the availability of fish and fur species is widely accepted, more research is needed to quantify the relationship. In 1983, the value of U.S. fish and shellfish loading was $6.3 billion.

Recreational and Educational Wetland Functions

Wetlands provide opportunities for numerous recreational and educational activities including hunting, fishing, photography, hiking and canoeing. These wetland based activities contribute significantly to many local economies. Wetlands isolated from population centers may only provide secondary recreational benefits such as resting grounds for migratory waterfowl. As demand for recreation increases, these isolated areas may become more important.

Economists have attempted to assign values to these wetland functions without a great deal of success. Most of their efforts have focused on the value of wetland habitat for waterfowl and fish. The Fish and Wildlife Service, intheir 1980 survey of fishing and hunting, reports 5.3 million waterfowl hunters in the U.S. The same survey reports 42 millioon fishermen, yet the role of wetlands in fishing activity has not been established. It has been noted that excessive disturbance from fishing and hunting can disrupt wetland habitat.

Nonconsumptive recreation, such as photography, hiking and canoeing, is a popular activity in wetlands. The Fish and Wildlife Service reported over 8 billion participants in 1980. The educational and scientific value of wetlands is frequently mentioned in wetland literature. This value assessment depends on cultured perspectives and philosophical beliefs, but generally also includes maintenance of the gene pool, rare species, and historic sites.

APPENDIX B

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10/31/86

WETLANDS STRATEGIC PLAN
BACKGROUND MATERIALS
BRIEFING FOR THE ADMINISTRATOR
NOVEMBER 4, 1986

PURPOSE OF MEETING IS THREE-FOLD:

1. THIS IS OPPE'S HAND-OFF OF THE LEAD FOR PLANNING A STRENGTHENED WETLANDS PROGRAM
2. DISCUSS THE EXPECTATIONS FOR THE WETLANDS OFFICE
3. SET DIRECTION FOR DECISIONS FOR FY'87 AND FY'88

CONTENTS OF BACKGROUND MATERIALS:

I. PROBLEMS AND GOALS
II. NECESSARY ELEMENTS OF AN EFFECTIVE WETLANDS PROGRAM
III. RECOMMENDED ACTIONS
IV. A THREE YEAR SCENARIO FOR BUILDING THE WETLANDS OFFICE
V. NEXT STEPS

APPENDIX:
- ADVANTAGES AND LIMITATIONS OF THE MAJOR ELEMENTS OF THE WETLANDS PLAN
- DESCRIPTION OF OBJECTIVES AND ACTIONS

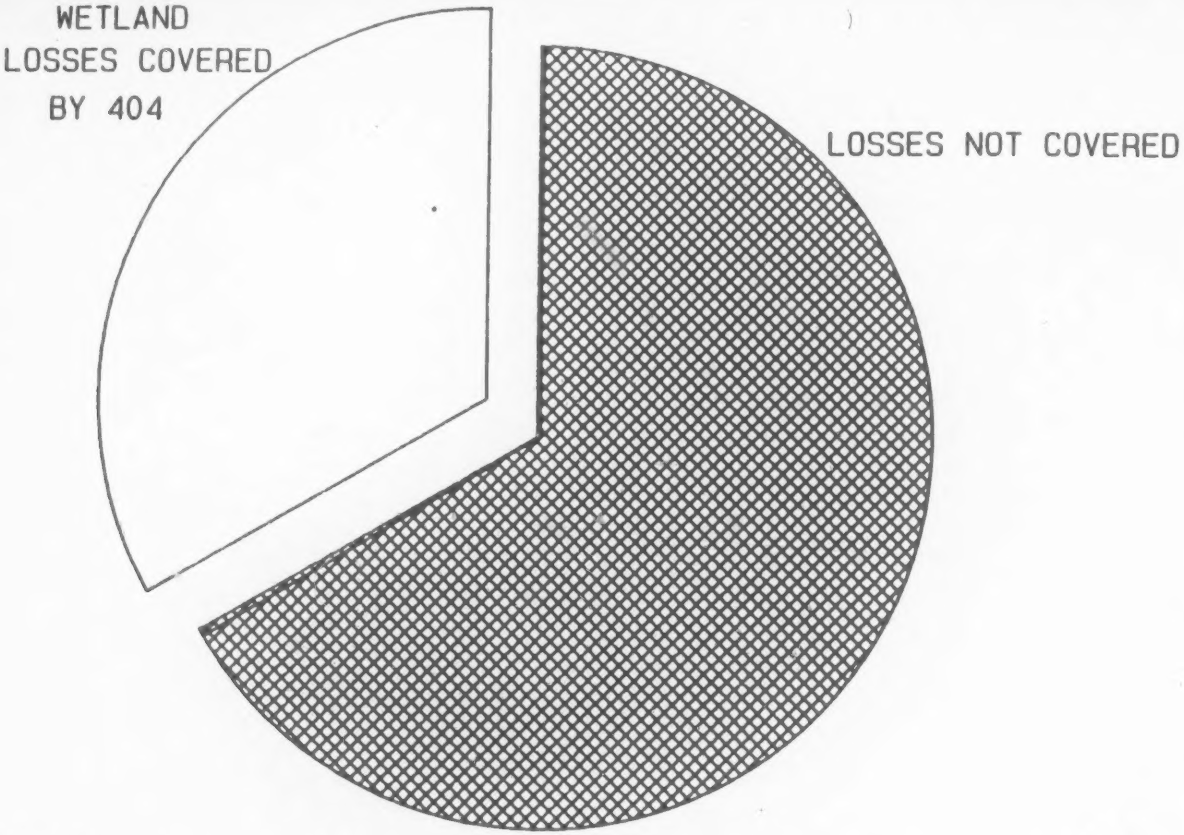
I. PROBLEMS AND GOALS

WHEN WE LAST MET WITH THE ADMINISTRATOR (APRIL 25) WE AGREED ON THE FIVE PROBLEMS AND GOALS THE WETLANDS WORKGROUP IDENTIFIED:

PROBLEMS	GOALS
SIGNIFICANT LOSSES:	
A. NATIONWIDE	I. RAISE THE LEVEL OF PROTECTION FOR ALL WETLANDS TO MINIMIZE LOSSES
B. IN GEOGRAPHIC AREAS OF SPECIAL CONCERN	II. IDENTIFY, PROTECT, AND RESTORE THE MOST VALUABLE AND VULNERABLE GEOGRAPHIC WETLAND AREAS
GAPS IN KNOWLEDGE	III. REDUCE INFORMATION GAPS, REVISE WETLAND STRATEGY AS APPROPRIATE
INCONSISTENT FEDERAL AND STATE POLICIES	IV. REDUCE INCONSISTENCIES IN FEDERAL AND STATE POLICIES AND LAWS TO MINIMIZE WETLAND LOSSES
HOW WETLANDS ARE VALUED	V. INCREASE THE UNDERSTANDING AND USE OF ECOLOGICAL VALUES IN PUBLIC AND PRIVATE DECISIONS ON WETLANDS

WE FURTHER AGREED THAT WE HAVE TO MOVE FORWARD ON ALL FIVE GOALS TO PROTECT OUR WETLANDS RESOURCE.

FIGURE I



UP TO TWO-THIRDS OF LOSSES NOT COVERED BY 404

* OTA ESTIMATE

II. NECESSARY ELEMENTS OF AN EFFECTIVE WETLANDS PROGRAM

FIGURE 1 SUGGESTS THAT A SUCCESSFUL NATIONAL PROGRAM MUST ADDRESS CAUSES OF LOSS BEYOND THE §404 PROGRAM. AN EFFECTIVE WETLANDS PROTECTION PROGRAM WILL REQUIRE ACTIVITIES WHICH ADDRESS ALL FOUR ELEMENTS LISTED BELOW:

MAINTAIN CURRENT §404 REGULATORY PROGRAM FUNCTIONS

- THE SUCCESS RATE OF INFLUENCING COE PERMIT DECISIONS IS GOOD (EPA HAS SIGNIFICANT COMMENTS ON ONLY ABOUT ONE-FIFTH OF PERMITS AND APPROXIMATELY 80% OF THESE COMMENTS ARE ACCEPTED BY THE COE).
- EPA SHOULD MAINTAIN A STRONG PERMIT AND ENFORCEMENT PRESENCE TO ENSURE EFFECTIVE IMPLEMENTATION OF REGULATORY PROGRAM
- HOWEVER, INCREASES IN PERMIT REVIEWS ARE NOT LIKELY TO SIGNIFICANTLY INCREASE WETLANDS PROTECTION WITHOUT ADMINISTRATIVE AND LEGISLATIVE CHANGES TO COE & EPA ROLES & AUTHORITIES

INCREASE ADVANCE PLANNING ACTIVITIES TO PROTECT PRIORITY (VALUABLE/VULNERABLE) WETLAND AREAS

- THE PERMIT-BY-PERMIT APPROACH DOES NOT ADEQUATELY ADDRESS THE SIGNIFICANT EFFECT OF CUMULATIVE LOSSES
- ADVANCE PLANNING:
  - GENERATES IMPORTANT INFORMATION ON WETLAND FUNCTIONS FOR USE IN PERMIT DECISIONS AND FOR LOOKING AT WHOLE ECOSYSTEMS RATHER THAN INDIVIDUAL ACTIONS
  - PROVIDES FOR SPECIALIZED APPROACH TO PROTECT GEOGRAPHIC AREAS OF SPECIAL CONCERN
  - INCREASES PUBLIC AWARENESS OF WETLAND LOCATION, FUNCTIONS AND VALUES, AND ENHANCES PREDICTABILITY OF PERMITTING ACTIONS FOR REGULATED COMMUNITY
  - CAN AFFECT WETLAND RESOURCES BEYOND §404 PERMITS THROUGH COORDINATION WITH STATE AND LOCAL PROTECTION ACTIONS

INCREASE ACTIVITIES WHICH CATALYZE AND ENHANCE OTHER WETLAND PROTECTION EFFORTS

- §404 JURISDICTION OVER WETLAND ACTIVITIES HAS EXPANDED AND CAN CONTINUE TO EXPAND THROUGH RESOLVING DEFINITIONS AND BROADER INTERPRETATIONS OF THE STATUTE. HOWEVER, §404 REGULATORY ACTIVITIES CANNOT COVER TOTAL WETLAND LOSSES (ESTIMATE ONLY 30-50% OF LOSSES CAN BE COVERED)
- IF WE WANT TO AFFECT GREATER AMOUNT OF LOSSES, WITHOUT INCREASED STATUTORY AUTHORITY, WE MUST EXPAND ACTIONS WHICH CATALYZE OTHER GROUPS TO INCREASE EFFECTIVENESS
- THESE ACTIVITIES USE INCENTIVES AND ASSISTANCE RATHER THAN COMMAND AND CONTROL APPROACH TO REDUCING LOSSES

BUILD INFORMATION BASE FOR DECISIONS IN THE 1990's

- DETERMINE NEEDS AND DESIGN FOR NEW LEGISLATION / INTER-AGENCY AGREEMENTS. THE NATIONAL FORUM ON WETLANDS IS FIRST STEP IN THIS PROCESS
- CATALYST EMPHASIS OVER THE NEXT 5 TO 10 YEARS WILL TEST THE EFFECTIVENESS OF BROADER NON-REGULATORY PROGRAM UNDER EXISTING AUTHORITIES
- WE MUST CONTINUE TO IMPROVE SCIENTIFIC INFORMATION BASE FOR ASSESSMENT AND PROTECTION EFFORTS UNDER EXISTING PERMIT PROGRAMS, ADVANCE IDENTIFICATION, AND FOR IMPROVED STATUTORY AND REGULATORY PROGRAMS IN THE FUTURE.

FIGURE 2 DISPLAYS THE CURRENT DISTRIBUTION OF RESOURCES IN EPA'S WETLAND PROGRAM. OVER 75% OF THE RESOURCES ARE DEDICATED TO THE REGULATORY PROGRAM WITH SERIOUS DEFICIENCIES IN THOSE AREAS WHICH COULD ADDRESS LOSSESS OUTSIDE OF THE §404 REGULATORY AUTHORITIES (THIRD ELEMENT ABOVE, "EPA AS CATALYST").

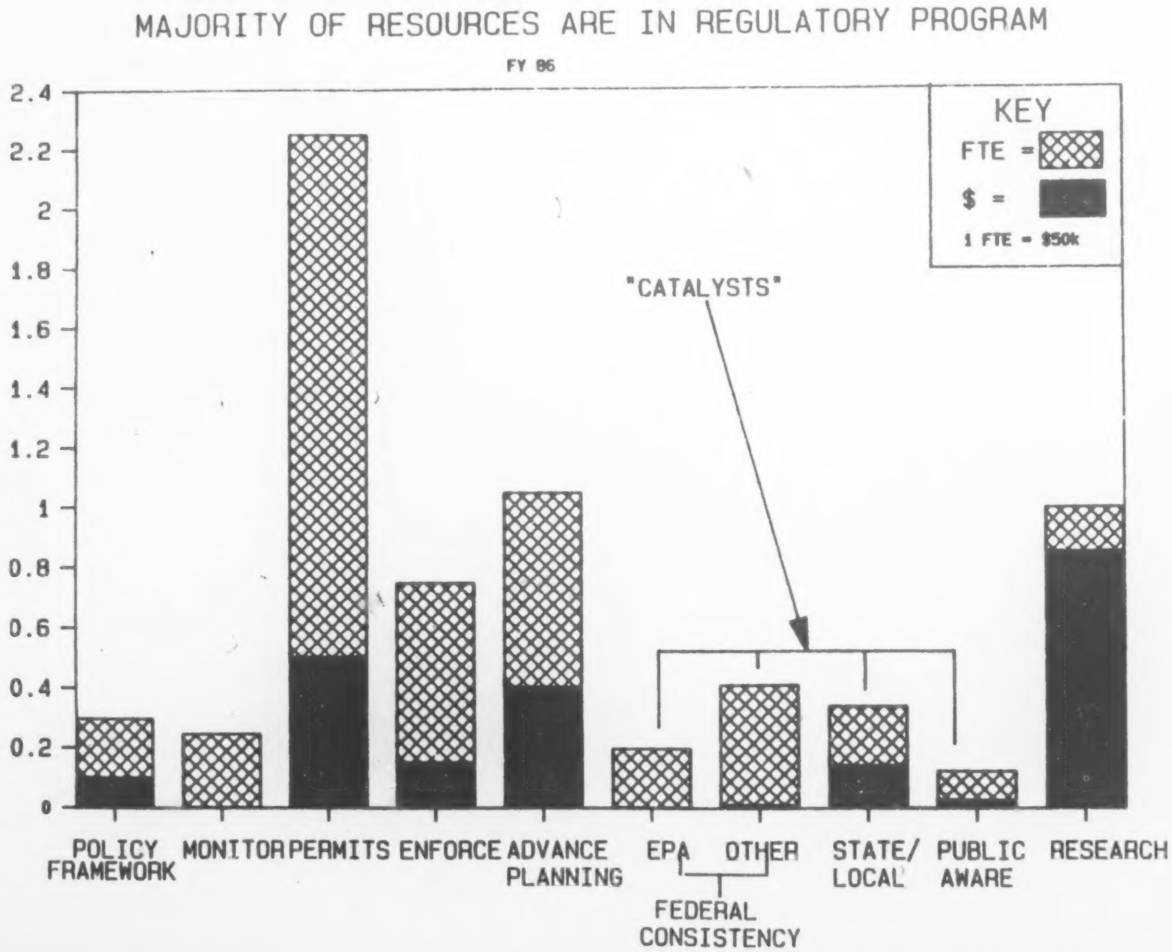


FIGURE II
MILLIONS (ESTIMATED)

III. RECOMMENDED ACTIONS FOR AN EXPANDED WETLANDS PROGRAM

BUILDING A "STRONG" EPA WETLANDS PROGRAM FROM THE LONG LIST OF POTENTIAL ACTIONS

- WE LOOKED AT 4 CRITERIA:
  1) IMPACT ON QUALITY OR QUANTITY OF WETLANDS
  2) LIKELIHOOD OF SUCCESS
  3) EPA "IMAGE" - HELPFUL OR HARMFUL
  4) COST TO EPA AND OTHERS

- WE SELECTED: TWENTY-ONE MAJOR ACTIVITIES UNDER SIX BROAD OBJECTIVES

MAJOR ACTIVITIES FOR THE OFFICE OF WETLANDS PROTECTION

§404 CENTRAL PROGRAM
- MAINTAIN PERMIT REVIEW
- * SPEED UP TIMING FOR POLICY FRAMEWORK
- * IMPROVE MONITORING SYSTEMS FOR PROGRAM ASSESSMENT AND INCREASE DATA COLLECTION FOR TRENDS ANALYSIS
- * INCREASE ENFORCEMENT OF UNAUTHORIZED ACTIVITIES

ADVANCED PLANNING

- INCREASE ADVANCE IDENTIFICATIONS IN PRIORITY WETLAND AREAS
- COMPLETE COMPREHENSIVE STRATEGY IN PRIORITY AREA: BOTTOMLAND HARDWOODS,(AND OTHERS?)
- ** DEVELOP AND USE ADVANCE PLANNING ACTIVITIES BEYOND §404 (COORDINATE ALL AUTHORITIES)

STATE / LOCAL ROLES

- GRANTS TO STATES TO IMPROVE STATE PROGRAMS AND ENCOURAGE INNOVATION
- * INCREASE COORDINATION ON PERMITS
- ** TECHNICAL ASSISTANCE TO INCREASE EFFECTIVENESS OF §401 CERTIFICATION AND FOR INFORMATION-SHARING

FEDERAL CONSISTENCY
WITHIN EPA
- * CONSISTENT POLICY/TREATMENT OF WETLANDS

OTHER AGENCIES
- * SWAMPBUSTER- REGIONAL TECHNICAL ASSISTANCE AND OVERSIGHT
- * POLICY DIALOGUE (NATIONAL WETLANDS FORUM)
- ** AWARENESS AND ASSISTANCE TO LAND & WATER MGMT AGENCIES TO PROTECT WETLANDS

PUBLIC AWARENESS
- ** CLEARINGHOUSE- FOR GENERAL PUBLIC AND STATES
- * YEAR OF THE WETLAND (WORKSHOP/PUBLIC SERVICE ANNOUNCEMENTS, ETC.)
- * INCREASE USE OF DISPUTE RESOLUTION IN WETLAND CONFLICTS

INFORMATION GAPS

- ORD RESEARCH PLAN
- * RESEARCH EXTENT OF DEGRADATION AND DEVELOP INCENTIVES TO RESTORE
- * IMPROVE FUNCTIONAL EVALUATIONS AND DEVELOP ECOLOGICAL RISK ASSESSMENT
- DEVELOP WATER QUALITY STANDARDS FOR WETLANDS

* indicates unfunded items for '87 & '88(requested budget)
** indicates underfunded items for '87 & '88(requested budget)

NOTE: THE APPENDIX DESCRIBES EACH OF THESE ACTIONS IN MORE DETAIL

OPTION SELECTION ISSUES

- IDEALLY MOVE FORWARD ON ALL FRONTS;

  ALL SIX OBJECTIVE AREAS ARE IMPORTANT TO AN EFFECTIVE PROTECTION PROGRAM

WE ARE PROPOSING A PLAN TO DEVELOP THE OFFICE OVER THE NEXT THREE YEARS. THE FOLLOWING TWO PAGES LAY OUT A SCHEDULE TO INITIATE OR INCREASE THESE ACTIONS.

THREE-YEAR PLAN FOR WETLANDS PROTECTION (PART I)

KEY
Blue = in '87 budget or '88 request
GREEN = NEW OR INCREASED (CAPS) ACTIVITIES

FY '87	FY '88	FY '89
CENTRAL SECTION 404		
Permit Review..........	....	....
Policy Framework..........	SPEED UP POLICY FRAMEWORK	....
Enforcement..........	....	...INCREASE ENFORCEMENT..
Monitoring..........	IMPROVE MONITORING/TRENDS	....
ADVANCED PLANNING		
Advance Identification.....	..Increase Advance.ID....	....
Bottomland Hardwood Guidance		
Pilot Test Regional Coordination..........	....	EXPAND USE OF REGIONAL COORDINATION..............
INFORMATION GAPS		
ORD Research Plan..........	....	....
		INITIATE RESEARCH ON EXTENT OF DEGRADATION........ DEVELOP RESTORATION INCENTIVES
		INITIATE DEVELOPMENT OF WETLAND-SPECIFIC WQ STANDARDS................
		ECOLOGICAL RISK ASSESSMENT/ FUNCTIONAL EVAL'S............

THREE-YEAR PLAN FOR WETLANDS PROTECTION (PART II)

FY '87	FY '88	FY '89
STATE/LOCAL		
Assessment of State Needs		
DEVELOP POLICY FOR STATE GRANTS....................	....Implement Increase in Grants..........	....
		TECHNICAL ASSISTANCE FOR 401 AND OTHER ......
	PERMIT COORDINATION........	....
	INFORMATION SHARING..............	....
Limited Information Exchange		
FEDERAL CONSISTENCY		
EPA		
Current Coordination	....EPA AWARENESS AND PROGRAM COORDINATION............	... DEVELOP AND IMPLEMENT POLICIES WITH OTHER EPA PROGRAMS............
OTHER		
Swampbuster- TECHNICAL ASSISTANCE AND OVERSIGHT............	...Swampbuster- IMPLEMENTATION OVERSIGHT IN REGIONS............	....
NATIONAL WETLANDS POLICY FORUM..........	....	
Current Federal Liaison (outside 404)..	....	....DEVELOPMENT AGREEMENTS/ OVERSIGHT OF LAND AND WATER MANAGEMENT AGENCIES..............
EIS Review................	....	....
PUBLIC AWARENESS		
Initiate Development of Public Information Materials............	....	
INITIATE CLEARINGHOUSE	CLEARINGHOUSE FOR GENERAL PUBLIC AND STATES......	....
INITIATE PREPARATION FOR "YEAR OF THE WETLAND"................	....	.... YEAR OF THE WETLAND
		USE DISPUTE RESOLUTION IN WETLAND DECISIONS

NEXT STEPS

- SHIFT THE PLANNING LEAD FROM OPPE TO OW
- WE ARE IN AGREEMENT ON THE GENERAL ELEMENTS OF THE WETLANDS PROGRAM. WE NEED TO DECIDE IF THESE ARE THE RIGHT ACTIONS:
  - ARE THERE ACTIONS YOU DO NOT WANT TO PURSUE NOW?
  - HOW QUICKLY DO WE WANT RESULTS?
- WHAT ARE OUR PLANS FOR '87 AND '88?
  - SOME ACTIONS ALREADY DECIDED:
    - MAINTAIN THE PERMIT PROGRAM
    - ENLARGE RESEARCH
    - EMPHASIZE ADVANCE PLANNING
    - INITIATE THE WETLANDS FORUM
  - OTHER AREAS ARE NOT ADEQUATELY COVERED:
    - PLANS FOR STATE ROLES AND ASSISTANCE
    - FEDERAL CONSISTENCY, PARTICULARLY SWAMPBUSTER
    - PUBLIC AWARENESS
  - CAN WE PROVIDE ADDITIONAL RESOURCES FOR THESE AREAS?
- WHAT DOES THE ADMINISTRATOR NEED TO MAKE THESE DECISIONS?

BACKGROUND

APPENDIX

- ADVANTAGES AND LIMITS OF THE MAJOR ELEMENTS OF THE WETLANDS PLAN
- SUMMARY DESCRIPTION OF OBJECTIVES AND ACTIVITIES

ADVANTAGES AND LIMITS OF MAJOR ELEMENTS OF THE WETLANDS PLAN

I. MAINTAIN CURRENT §404 REGULATORY PROGRAM FUNCTIONS

Advantages:
- Still Room to Increase Reduction of §404 Losses by Improving Program
  (Policy Framework: Resolve Definitional and other Issues; Increase 404c and Enforcement)
- EPA Presence and Guidelines Moderate COE Permit Actions and Private Actions Which Impact Wetlands
- Statutory Mandate for EPA Involvement in Wetland Protection

Limits:

- Cannot Directly Address 1/2 to 2/3's of Wetland Losses
- Permit-by-Permit Approach Nibbles Away at Resource (Hard to Consider Cumulative Impacts)
- Limitations to Effectiveness of Federal Control of Property Use Issues
- Adversarial Command and Control Approach to Wetland Protection

II. INCREASE ADVANCE PLANNING ACTIVITIES TO PROTECT PRIORITY WETLAND AREAS

Advantages:
- Specialized Actions to Protect Priority Wetlands
- Potential to Expand Efforts Beyond §404 (Coordinate with Other Agencies, State, Local, Private)
- Generates Information for Permit Decisions
- Creates Predictability of Permit Decisions and Increases Awareness of Wetland Locations and Values

Limits:
- Costs High
- Can Only Cover Small Number of Total Wetlands
- Current Advanced Identification Efforts only Cover §404 and Implementation is Still Uncertain; BUT Can Include Other Authorities

III. INCREASE ACTIVITIES WHICH CATALYZE AND ENHANCE OTHER WETLAND PROTECTION EFFORTS

STATE/LOCAL PROGRAMS

Advantages:
- Initial Costs High; However, Lower Long-Term Costs as State Capabilities and Programs Increase
- High Potential Impact on Wetlands
- Supports Federalism - More Authority/ Potential for Land-Use Planning and Control at State Level
- EPA can Use Incentivies Rather Than Just Command & Control

Limits:
- Difficult to Get 50 Good Programs
- Some States Prefer / Need Federal Control Levers
- Does Not Address Wetland Loss in Reticent States; Where Wetlands Ecosystems Cross State Boundaries; and Federal Activities

FEDERAL CONSISTENCY - EPA & OTHER

Advantages:
- Medium costs which should only be short-term
- Much Potential to Protect Wetlands with EPA's Other Water Programs; and Important to get EPA "House" in Order Before Going to Other Agencies
- Some Federal Activities with Large Impacts not Covered by States nor §404
- Big Opportunities to Reduce Losses: Swampbuster has Potential for Large Reductions in Losses not Under §404 (Must Act Now)
- Federal Activities Contributing to Wetland Loss Hinder Both Federal and State Protection Efforts

Limits:
- Liklihood of Success Depends on Ability to Address/ Accomodate Competing Federal Mandates
- Addressing Consistency Within Some of EPA's Programs May Not Significantly Affect Losses
- Addressing Actions of Other Federal Agencies Does Not Address Private Actions

PUBLIC AWARENESS

Advantages:
- Necessary Component of Any Wetland Program (at Least Awareness of Regulated Community)

- Affects the Many Individual Decisions / Root of the Problem

- Increasing Involvement of Public in Wetland Decisions Should Help Implementation of Decisions

Limits:
- Not Clear Just How Much Reduction in Losses Can Get From Increased Awareness

- Results of General Awareness of Wetland Values Longer-Term Rather Than Immediate

IV. BUILD INFORMATION BASE FOR DECISIONS IN 1990'S

Advantages:
- Do not Know Enough About Certain Areas to Act Now: (Examples: Role of Specific Wetlands for Water Quality, Extent of Degradation of Wetlands, Ecological Value Assessment for Risk Based Decision-Making)

- Information Developed Can Be Distributed to Enhance All Wetland Protection Efforts

Limits:
- Most Are High Cost Items

- Results Are Long-Term Rather Than Immediate

- If Put Off Protection Actions While Waiting for Information, May Have Many Wetland Losses in Short-Term

SUMMARY DESCRIPTION OF OBJECTIVES AND ACTIVITIES

§404 REGULATORY PROGRAM

PERMIT REVIEW

WHAT:

- Maintain level of EPA review of §404 permit applications for discharge of dredge or fill material into waters of the U.S. (include wetlands).
- Includes 404(c) veto of permit.

WHY:

- Central function of regulatory wetland protection program.
- EPA involvement affects issuance and conditions of permits.
- Need to maintain EPA presence and review ("stick" for getting compliance).

WHEN:

- Constant resources.

POLICY FRAMEWORK

WHAT:

- Guidance for 404 program (clarifying (b)(1) guidelines). Includes: mitigation policy (including evaluation/policy on mitigation banking); definition of water dependency, definition of practicable alternatives; guidance to simplify 404(c) process; clarify 404 exemptions (f;r); jurisdiction; and guidance for advance identification (230.80).
- Improve the effectiveness of the permit program to reduce wetland losses.

WHY:

- Provide predictability and consistency to EPA actions across country.
- Speed up permit decisions.
- EPA permit decisions more likely to stand against legal challenges.

WHEN:

- Add resources to speed up process to complete framework in 2-3 years.

MONITOR PROGRESS

WHAT:

- Wetlands Information Management System - Internal EPA monitoring of actions; national database of success with permits.
- Develop geographic information system (GIS) for use in all Regions to analyze large amounts of data and changes over time.
- Coordinate / share information gathering with other Agencies (i.e. FWS, COE, NMFS).
- Increase trend analysis of wetland resource in all Regions and aggregate nationwide.

WHY:

- Keep up with what actions are being taken in Regions and compile nationwide.
- Trends analysis to begin developing a baseline; note changes in wetland resource, spot problem areas, assess impacts of various programs.
- Improve speed, efficiency and effectiveness of wetlands decisions and increase information available for decisions.

WHEN:

- FY'86 WIMS (ongoing)
  FY'88 Regional trends monitoring and analysis
  FY'89 GIS
  FY'89 Nationwide trends monitoring

ENFORCEMENT

WHAT:

- Target enforcement actions against significant violators in priority wetlands. Use Advance Identification to target compliance monitoring and enforcement activities.
- Initiate a national wetlands enforcement initiative and publicize to maximize deterrent effect and raise public awareness.
- Develop enforcement MOU with Corps for overall enforcement strategy and prepare joint report to Congress on enforcement mechanisms (if CWA Amendments approved).

- Utilize other agencies/groups to undertake compliance monitoring activities (e.g., MOU with Fish and Wildlife).

- Develop comprehensive Enforcement Guidance Manual.

- Develop policy and implement new administrative penalty provisions (if CWA Amendments approved).

WHY:
- Establish enforcement presence for program to enhance deterrence, increase public awareness, and increase overall effectiveness of requaltory program.

- Restore some wetland losses.

WHEN:
- Enforcement Initiative and Enforcement Guidance Manual FY'87.

Other activities will be developed during FY'87-FY'88 with implementation beginning FY'88-FY'89.

ADVANCE PLANNING

WHAT:
- Increase activities which get ahead of permit by permit decisions such as: advance identification (230.80); pilot test coordination of all authorities in one wetland ecosystem (regional planning); and site-specific protection strategies (example Bottomland Hardwoods).

WHY:
- Increase predictability and consistency for regulated community.

- Generates important information for permit decisions and provides opportunity to consider cumulative impacts on whole ecosystem.

- Increases public awareness of wetland functions and values.

- Coordinated efforts beyond §404 provide above benefits and can encourage and coordinate state and local protection actions. Potential to address the broader range of activities which negatively affect wetlands.

WHEN:

- '87 advance identification initiated in almost every Region (priority areas)
  '88 increase advance identifications (14 FTE's)
  '87-88 pilot test coordination/planning beyond §404

STATE AND LOCAL ROLES

OPTION I WHAT:

- Develop policy for and implement grants to states to improve State wetland protection programs and encourage innovation.
- Technical assistance to states to increase effectiveness of §401 certification to prevent wetland degradation.
- Provide technical assistance and national databases/ information sharing for development of state (inland) wetland protection programs.
- Increase Regional coordination with States on permit reviews.

WHY:

- Offer incentives rather than just deterrence (permits & enforcement) to protect wetlands.
- States have more authority and jurisdiction over how property is used. Helps avoid conflicts of Federal involvement in "land use" planning.
- Some states trying innovative protection efforts - encourage these.
- All states have §401 WQ certification authority and there is great potential to use this tool to increase wetland protection. However, incentives and assistance are needed to technically define appropriate standards, increase awareness of the potential, etc.
- A recent EPA study of state wetland programs identified the need for a central database of state and Federal programs and successes to serve all states.

WHEN:

- Increase in state grants FY '88(requested budget) Continue or increase for '89.
- Increases in FY'88 and FY'89 for technical assistanc
- Increases permit review coordination FY'89.

FEDERAL CONSISTENCY WITHIN EPA

WHAT:

- Coordinate and tap into other EPA programs with potential for wetland protection beyond §404 such as:
  - §401 certification
  - role of wetlands in wastewater treatment (§201)
  - nonpoint source runoff control
  - Groundwater protection
- Get EPA's "house" in order to get consistent treatment of wetlands by developing coordination strategies with superfund and RCRA (subtitle D).

WHY:

- Great potential for enhancing wetland protection using other parts of the Clean Water Act besides §404.
- Although total impact on wetlands will not be that significant for some EPA programs, EPA should make an effort to be consistent with our own treatment of wetlands if we are going to push for consistency in other agencies.

WHEN:

- Initiate coordination '87
  Build on Regional coordination with Superfund '87
  '87-'88 Develop program policies/agreements

OTHER AGENCIES

WHAT:

- Increase involvement in Swampbuster provisions of 1985 Farm Bill. Coordinate on HQ level with USDA to influence program's protection of wetlands. Technical involvement with SCS on the Regional level to ensure effective implementation.
- Initiate and complete National Wetlands Forum with a broad range of wetland interests to help identify and resolve inconsistencies in wetland protection.
- Increase review of EIS's to reduce Federal impacts to wetlands.
- Coordinate with other federal agencies - land and water agencies [BLM, Forest Service, DOD, COE] - whose activities are negatively affecting wetlands. Increase awareness, oversight and interagency agreements.

WHY: ° Swampbuster provisions are potentially a very powerful tool to reduce losses in inland wetlands. Agricultural activities account for at least 80% of the losses of freshwater wetlands. Although the Swampbuster legislation is strong, the success of the program is highly dependent on implementation. The most effective way to influence the implementation of Swampbuster is to work on the Regional level. Education and oversight of the local SCS representatives could improve wetland protection in implementation.

° The National Wetlands Forum is a mechanism to begin untangling the inconsistencies in Federal and State policies affecting wetlands. By involving a broad range of people interested in or affected by wetland policy, we can begin to sort out conflicting views and develop broadly-supported recommendations for wetland protection.

° EPA review of Federal EIS's is an important lever to begin reducing the negative impacts of Federal land and water management agencies.

° Federal agencies own or affect a significant number of wetlands. In particular, water and land management agencies take many actions which have negative impacts on wetlands. These conflicts in actions should be easier to resolve than actions of private property owners.

WHEN: ° Swampbuster FY'87
EIS Review FY'86 (ongoing)
Forum FY'87-88
Begin Federal Agency work FY'89

PUBLIC AWARENESS

WHAT: ° Clearinghouse - EPA can serve a central coordinating role by collecting and cataloguing available information on wetland values and functions. This role would serve the general public. This clearinghouse database would also contain activities and research for wetlands protection of both Federal and state governments.

- "Year of the Wetland" - unified theme to "kick off" a public awareness effort for wetlands.
  - Would involve EPA coordination with other Federal agencies, States and local agencies, industry, and environmental groups.
  - Collection and development of public education materials including: public Service announcements, information on regulatory program; general information on wetland functions and values; public workshops, etc.
- Dispute Resolution - identify appropriate uses for dispute resolution techniques to resolve conflicts, speed up contentious permit decisions, and avoid litigation. Includes use of Alternative Dispute Resolution to resolve enforcement actions.

WHY:

- There is a general lack of awareness of wetland functions and values of freshwater wetlands. There is a great deal of region-specific information which has not been collected in one place.
- One of the most effective ways to reduce losses caused by individual wetland owners is to change their attitude, and thus behavior, towards wetlands.
- Increased awareness of wetland values should help to factor these considerations into decisions affecting wetlands. Increased awareness of Federal and State protection programs helps to increase compliance.
- There are fundamental conflicts in values which collide in wetlands. There are benefits from water-dependent activities which must be considered along with benefits from leaving wetlands in their "natural" state. Dispute resolution techniques can effectively address these conflicts and useful in development of mitigation plans, plans to protect a regional wetland system, etc.

WHEN:

- Begin FY'87 (ongoing)
  Preparations '87
  '88 or '89 Year of the Wetland
  Dispute resolution pilots '88

INFORMATION GAPS

WHAT:

- ORD 5-Year Research Plan. This plan has three components: water quality functions of wetlands; assessment of cumulative impacts; mitigation of wetland impacts (creation, restoration, enhancement of wetlands).
- Develop biological water quality standards for States.
- Research extent of wetland degradation nationwide (such as from pollution, water table subsidence, sedimentation) and develop incentives to restore wetlands. Reexamine methods to reduce degradation.
- Improve functional wetland assessments leading to development of ecological risk assessment. Ecological risk assessment is a tool to estimate impacts from an activity or wetland function. EPA is currently developing risk assessment methods for individual chemicals in an ecosystem but is not focusing on assessing risk of other degradation.

WHY:

- The 3 components are important elements which would improve assessment capabilities for wetland §404 permits and build technical basis for legislative decisions in 1990's.
- The lack of biological standards inhibits States from using standards violation, and the significant power of §401 Certification, for protection of habitat, particularly wetlands.
- There is very little information on how many wetlands have lost some or all of their functions from degradation other than complete fill.
- Ecological risk assessment methods can begin to answer the question how much loss is "too much," in terms of destroying the functions wetlands serve.

WHEN:

- Interim products each year; final products '90.
  '88-'89 initiate research on degradation impacts
  '90 initiate development of restoration incentives
  '89 initiate research on functional eval's leading
   to eco-risk assessment
  '89 initiate research on Biological Standards.

Mr. **Rowland**. We have one additional witness, Mr. Scott Hausmann, President of the Association of State Wetlands Managers.

[Witness sworn.]

I apologize for the lateness of the hour. You have been very patient. Please proceed in your own manner.

TESTIMONY OF SCOTT HAUSMANN, PRESIDENT, ASSOCIATION OF STATE WETLANDS MANAGERS

Mr. **Hausmann**. Mr. Chairman, thank you for inviting me and the association to testify.

First let me say that the Association of State Wetlands Managers is a national organization of State, Federal, and local officials. Its goal is to better protect, preserve, and manage the Nation's wetlands. Also I am the Program Manager of the State of Wisconsin's Wetland Protection Programs.

I want to quickly summarize the remarks that I have prepared. We were asked to talk particularly about the enforcement program, so I will limit my comments to that.

Mr. **Rowland**. Without objection, your entire testimony will be made a part of the record.

Mr. **Hausmann**. Thank you.

We believe that there are four major reasons for the poor performance of the Section 404 enforcement program. Let me make it clear that we do believe that the past record is poor at best.

The first reason is the lack of clear and relatively specific standards for wetland loss and compensation measures. We believe that developing a standard, no matter what it is, would lead to uniformity of permitting and enforcement and equally important, free the regulatory staff from time-consuming and often agonizing attempts to determine acceptable levels of loss and compensation in each instance. I am sure that we have heard enough of those examples today of the agonizing battles to make those decisions. By the way, we would recommend no overall loss of acreage and function as the standard.

The second reason is the lack of staff and budget restraints. Surveillance and enforcement activities are people, time, and dollar-intensive. The number of Corps and EPA staff and budget assigned to the enforcement and surveillance program are minuscule in relation to the number of permits in the geographical area. For example, in the State of Wisconsin, I use the services of over 80 conservation wardens and 21 field staff whose only duty is the water regulation or wetlands protection programs. EPA and the Corps of Engineers have exactly three people assigned to the State of Wisconsin.

Another reason is too much administrative emphasis on permit processing. Our experience is that the policy and practices initiated by the Office of the Chief of Engineers and the Secretary of Civil Works emphasize permit processing to the detriment of enforcement. We realize that the Corps is doing the best that it can with limited resources and has made a choice on how to best use those limited resources. However, the Section 404 program, to be effective, must have a strong enforcement element. Without it there is no incentive for the regulated public to comply with the Section

404 program. The fourth reason is split enforcement authority and the lack of administrative penalties for violations of permit requirements is another problem area.

The Clean Water Act authorizes the corps to issue compliance orders and to bring remedial civil actions against permit violators. The EPA is invested by the Clean Water Act with enforcement authority for unauthorized activities. Our experience is that EPA places a low priority on its enforcement responsibilities, uses its authority sparingly, although that is now changing, and under gentlemen's agreements with the corps, generally allows the corps to accept after-the-fact permit applications for unintentional and intentional failure to obtain permits. The corps, for its part, uses administrative remedies, particularly after-the-fact permits, rather than civil or criminal remedies even for intentional violations. Some of this low priority, we believe, is due to administrative direction, staff and budget limitations, and difficulty with the Department of Justice referral process. We also believe that in many of the enforcement cases the coordination between the agencies is poor and that State and local agencies generally are not consulted or used to prevent unnecessary losses of valuable wetlands.

We recommend to the subcommittee a number of actions. That a no net overall loss of acreage and function standard be adopted; that EPA and the corps should also adopt more specific restoration/creation mitigation guidelines; that Congress provide additional resources to the Corps and EPA wetland programs specifically earmarked for monitoring and enforcing; that the Corps and EPA give priority to monitoring and enforcement activities; that internal procedures and monitoring mechanisms be developed to insure timely response to complaints and timely enforcement action; that the Corps and EPA complete and adopt a coordinated enforcement program utilizing the staff and the resources of both agencies; and that they clearly outline their respective responsibilities.

The resources and enforcement of State and local agencies should also be recognized and utilized. In the last decade, most States have adopted both inland and coastal wetland programs and approximately 4,000 local communities have adopted wetland protection programs. While State and local enforcement activities also leave much to be desired, a coordinated local, State, and Federal surveillance and enforcement program holds much promise.

Further we suggest that the Congress provide mandatory administratively imposed penalties for both unintentional and intentional failure to obtain permits prior to filling activities and that Congress provide administratively imposed penalties for violations of permit conditions. The Corps should have a mechanism to impose administrative civil forfeitures on unintentional permit violations and the non-discretionary duty imposed on it to impose those forfeitures on unintentional violators.

In summary, a lot has been learned since 1972 about permitting and enforcement. We believe that it is time to build upon that knowledge to build a truly effective program to protect and manage this Nation's resources.

Mr. ROWLAND. Thank you very much for your testimony, I do not have any questions.

Mr. Clinger?

Mr. CLINGER. I have no questions, but I do appreciate your patience in being with us and we appreciate your testimony very much.

Mr. ROWLAND. Before you leave, let me ask just a couple of questions. Do you believe that the differences between the Corps and the resource agencies can be resolved without further direct legislation from the Congress?

Mr. HAUSMANN. I would like to think that the agencies could work it out. However, I believe from looking at the history that the very clear intentions of Congress and the respective roles of the agencies probably should be done by Congress. I guess that I am agreeing with Mr. Roe that we have piece-mealed a program together. While it is the only program that we have, it does suffer from a lack of direction or interpretation in the direction of the program. I think that there is some Congressional direction that is needed.

Mr. ROWLAND. I believe that we heard earlier today from Mr. Dunkle that he felt that they could resolve the problems without further legislation. To use his words, I think he said that we didn't need any more laws.

Mr. HAUSMANN. I would hope that they could, and that they could do it in a reasonable time-span, but I think that if there is no action, if we do not see that coordination and those long-term problems that have been discussed in our association and between these agencies for many years now, I think then that Congressional direction is needed.

Mr. ROWLAND. Do you think that many States have as strong a program as Wisconsin does? I think that we have a real strong program in my own State of Georgia.

Mr. HAUSMANN. There are a number of very strong programs. Georgia is one, Wisconsin is one, I believe that New Jersey is developing a very strong program. There are others, and then from that end, you go right down to the bottom end of the spectrum, where the only program is the Federal program. I would say, representing the State of Wisconsin, that one of the reasons that we got very actively involved in the Section 404 program was, not a fear for what was going to happen in Wisconsin, where we felt that we could regulate wetlands very effectively, but a concern for some of our neighboring States that do not have very strong State programs and from which we get a lot of our migratory waterfowl, and fish. A lot of natural resources come to us out of the prairie States which do not have programs or at least do not have very effective programs. We felt that to protect ourselves and some of these resources, we had to take a very active role in the Section 404 and 401 programs.

Mr. ROWLAND. Do you think that many of the States are anxious to take over the programs, and even if they did, how many of the States could enforce them properly?

Mr. HAUSMANN. I do not think that many States are anxious to take over the program because right now there is no monetary incentive to do that. What you do is you add a workload and a whole lot of hassles and there is no reward. You would be assuming a Federal program and not getting any resources, and then you have to go rant and rave at your legislature to give you the resources to run that program. For that reason I think that a lot of States are not particularly interested in assuming the Section 404 program. Currently my State is looking at assuming the program.

Mr. ROWLAND. Thank you again. We do appreciate your indulgence and appreciate you being here today.

[The prepared statement of Mr. Hausmann follows:]

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Statement of

Paul Scott Hausmann, Chair

Association of State Wetland Managers

On

The Corps of Engineers' Administration of

Enforcement Portion of the Section 404 Program

Before The

U.S. House of Representatives

Committee on Public Works and Transportation

Subcommittee on Investigations and Oversight

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The Association of State Wetland Managers is a national organization of state, federal and local officials. It's goal is better protection, preservation, and management of the nation's wetland resources. We believe that many of the mechanisms for achieving such protection and management are already in place but that need to be updated and strengthened.

Because of concern for the protection and management of wetlands, the Association would like to offer a few observations on the enforcement of the Clean Water Act, Section 404 program. We strongly support the 404 Program and believe that both EPA and the Corps should have a future role in that program.

We believe the Section 404 program, as in any regulatory program, must have a strong enforcement element to be effective. Our main concern about the enforcement of Section 404 is the lack of such enforcement in most incidences. There is something inherently wrong with a regulatory program in which after-the-fact permit applications are epidemic and routinely granted and in which little surveillance of permitted activities or for unauthorized activities is conducted.

An effective regulatory program has meaning only when the program is uniformly and efficiently enforced and permitting processes are clear, reasonable and fair. The standards for treating unauthorized activities must be at least as rigorous as those applied to permit applications. A permit program is not working to protect aquatic resources and prevent unnecessary harm to the environment when developers have no fear of filling now and asking questions later. At worst, violators are requested to file after-the-fact permit applications, only to have them granted, or granted with "mitigation" tradeoffs.

We believe that there are four major reasons for the poor performance of the Section 404 enforcement program:

1. Lack of clear and relatively specific standards for wetland loss and compensation measures. We believe that a standard of no overall net loss of acreage and function would lend uniformity to permitting an enforcement and equally important, free regulatory staff from time-consuming and often agonizing attempts to determine acceptable levels of loss and compensation in each instance. Regulatory staff should be using their time to evaluate proposals rather than balancing compelling political pressures. This results in uneven and unfair decision making.

2. Lack of staff and budget constraints. Surveillance and enforcement activities are people, time and dollar intensive. The number of Corps and EPA staff and budget assigned to the enforcement program are miniscule in relation to the number of permits and geographic area. For comparison, the enforcement and surveillance element of Wisconsin's water regulation program uses the services of over 72 conservation wardens and 21 water regulation field staff; the Corps and EPA have a total of three people assigned to Wisconsin.

3. Too much administrative emphasis on permit processing. Our experience is that the policy and practices initiated by the Office of Chief of Engineers and Secretary of Civil Works emphasize permit processing to the detriment of enforcement. We realize that the Corps is doing the best it can with limited resources and made a choice of how to best use those limited resources, however the Section 404 program to be effective must have a strong enforcement element. Without it, there is no incentive for the regulated to comply with the Section 404 program.

4. Split enforcement authority and lack of administrative penalties for violations of permit requirements. The Clean Water Act authorizes the Corps tc issue compliance orders and to bring remedial civil actions against permit violators. No administrative penalties appear authorized.

The EPA is vested by the Clean Water Act with enforcement authority for unauthorized activities.

Our experience is that EPA places a low priority on it's enforcement responsibilities, uses it's authority sparingly and under "gentlemen agreements" with the Corps generally allows the Corps to accept after-the-fact permit applications for unintentional and intentional failure to obtain permits prior to filling activities rather than imposing penalties and other remedies. The Corps, for its part, uses administrative remedies (after-the-fact permits and permit modification, restoration and mitigation agreements) rather than civil or criminal remedies, even for intentional violations. Some of this we believe is due to administration direction, staff and budget limitations and difficulty with the Department of Justice referral process.

Also, coordination between EPA and the Corps is poor at best and that state and local agencies are generally not consulted or used to prevent unnecessary losses of valuable wetlands.

In order to strengthen enforcement of the Section 404 program we recommend the following:

-- A no net overall loss of acreage and function standard be adopted. The Corps and EPA should also adopt more specific restoration/recreation guidelines.

-- That congress provide additional resources to the Corps and EPA wetland program specifically earmarked for monitoring and enforcing.

-- That the Corps and EPA give priority to monitoring and enforcement activities. That internal procedures in monitoring mechanisms be developed to insure timely response to complaints and timely enforcement action.

-- That the Corps and EPA complete and adopt a coordinated enforcement program utilizing the staff and resources of both agencies and that they clearly outline their respective responsibilities. The resources and enforcement authority of state and local agencies should be recognized and utilized. In the last decade states have adopted both inland and coastal programs as well as approximately 4,000 local communities. State and local enforcement activities also leave much to be desired but coordinated local, state and federal surveillance and enforcement holds much promise.

-- That Congress provide mandatory administratively imposed penalties for both unintentional and intentional failure to obtain permits prior to filling activities.

-- That Congress provide administratively imposed penalties for violations of permit conditions. The Corps should have the mechanism to impose administrative civil forfeitures on unintentional permit violations and the nondiscretionary duty imposed on it to impose those forfeitures on intentional violators.

A lot has been learned since 1972 about permitting and enforcement, lets build upon that knowledge to build a truly effective program to protect and manage this nation's resources.

Mr. Rowland. The subcommittee stands adjourned.

[Whereupon, at 5:40 p.m., the subcommittee was adjourned, to reconvene at the call of the Chair.]

ADDITIONS TO THE RECORD

For the record

ROUNDTABLE DISCUSSION MATERIAL OF
DR. FORD A CROSS
DIRECTOR OF THE BEAUFORT LABORATORY
SOUTHEAST FISHERIES CENTER
NATIONAL MARINE FISHERIES SERVICE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

BEFORE THE

SUBCOMMITTEE ON FISHERIES AND WILDLIFE CONSERVATION
AND THE ENVIRONMENT
AND THE SUBCOMMITTEE ON OCEANOGRAPHY
OF THE
HOUSE COMMITTEE ON MERCHANT MARINE AND FISHERIES

AUGUST 11, 1988

My name is Dr. Ford A Cross, and I am the Director of the Beaufort (NC) Laboratory, Southeast Fisheries Center, National Marine Fisheries Service of the Department of Commerce's National Oceanic and Atmospheric Administration.

I am pleased to present a description of the research conducted at the Southeast Fishery Center's Beaufort Laboratory that deals with habitat issues and the role of this research in providing information needed for the conservation of our Nation's coastal wetlands.

As steward of our Nation's living marine and estuarine resources, NOAA has the mandate to conserve and restore the quantity and quality of habitats important to these resources. This mandate is addressed by conducting (1) a comprehensive research and assessment program to determine the effects of habitat alteration and pollution on populations of living marine resources and their habitats and (2) a comprehensive management system designed to conserve and enhance fishery populations through implementation of research and assessment findings. As we are becoming all too aware, man can and is altering the productivity of estuarine and coastal systems directly through harvesting fish and shellfish and indirectly by environmental modifications. The stress on these sensitive systems and their valuable living marine resources is increasing. This is reflected by the NMFS Habitat Conservation Policy (Federal Register, Vol. 48, No. 228, Friday, November 25, 1983, pp. 53142-53147) which projected that by the year 1990, 75% percent of the U.S. population will live within 50 miles of the coastline, including the Great Lakes.

Although this demographic trend is evident throughout the Nation, nowhere is it of greater concern than in the NMFS Southeast Region, from North Carolina to Texas, Puerto Rico and the Virgin Islands. This Region is experiencing a rate of population growth greater than the national average, yet supplies about 43% of the Nation's commercial fishery landings and about 58% of the recreational landings. Significantly, about 96% of the commercial and at least half of the recreational fishery landings consist of estuarine dependent species. Coastal wetlands in the Southeast Region represent about 83% of the wetlands remaining in the coterminous U.S.

The quality and quantity of estuarine habitats is a growing concern. Estuarine areas are being degraded and wetlands are rapidly disappearing in many areas. Urbanization, agriculture, hydrocarbon production, marsh management practices, and other human activities have contributed to the loss of wetland fishery habitats. For example, over 2.5 million acres of habitat are closed to shellfishing in the Southeast Region; over 140,000 acres of coastal wetlands have been filled in the Gulf of Mexico; about 400,000 acres of wetlands have been ditched and drained for superfarms in coastal North Carolina. The NMFS Southeast Region's Habitat Conservation Division reviews about 6,000 permits annually to alter wetlands as mandated by the Fish and Wildlife Coordination Act. The rate loss of coastal wetlands is greater in the southeast than elsewhere in the United States. Data published in 1988 indicate that losses in this Region accounted for 84% of the wetland losses nationwide and this does not include losses to seagrass systems for which there is no documentation.

The complex continuum of fisheries habitats, which extends from the freshwater-saltwater interface to oceanic habitats, and their fishery populations are being threatened by agricultural runoff, municipal and industrial wastes, water diversion through damming channelization and impoundments, dredging and filling, real estate development, marine transportation, and mineral and energy exploration and production. The projected growth in the Southeast Region dictates that continued adverse effects on fisheries and their habitats be minimized or reduced if we are to maintain and increase fishery productivity. Degradation of estuaries and coastal waters in this Region will have a much greater impact on fisheries yield than elsewhere because the majority of economically important species are dependent upon estuarine and nearshore ecosystems. Because the southeastern U.S. is growing and developing later than other regions, the opportunity exists to minimize most adverse impacts on fisheries, if the proper scientific information is obtained and used by decision-makers.

NOAA Fisheries (Fisheries or NMFS) recognized the need to minimize impacts on fishery habitats and fisheries on a national scale, and stated in its 1983 Habitat Conservation Policy

(Federal Register. Vol. 48, No. 228, Friday, November 25, 1983, pp. 53142-53147): "At a minimum, fishery management plans should include identification and descriptions of habitat requirements and habitats of the stock(s)..., identification, where possible, of causes of pollution and habitat degredation;... Failure to describe adequately the condition of the fishery habitat and any likely changes to it may raise questions under several of the national standards and under section 303(a) (1) of the Magnuson Act."

To be responsive to present as well as future needs, the fishery habitat program in the NOAA Fisheries Southeast Fisheries Center has developed a small but relatively comprehensive and integrated program of ecological research and information synthesis and transfer. This program, largely based at the Southeast Fisheries Center's Beaufort and Galveston Laboratories is designed to produce information on (1) the responses and sensitivity of fisheries to water quality and habitat degredation, (2) the status of critical coastal and estuarine fisheries habitats, and (3) the action needed to prevent, minimize, mitigate or reverse the effects of man's activities on fisheries production and fishery habitat. Today I will speak directly to the ongoing program at the Beaufort Laboratory.

The Beaufort Laboratory is uniquely situated at the boundary between two biogeographic zones, the Virginian and Carolinian, where the biota are primarily temperate but with some subtropical elements. Thus, within close proximity we have temperate and subtropical estuarine and oceanic conditions and flora and fauna for research purposes. As I will discuss, however, our habitat research efforts are not limited to North Carolina but include the Southeast Region of NMFS (NC-TX, Puerto Rico and the Virgin Islands).

Fishery habitat research conducted at the Beaufort Laboratory is a multidisciplinary program on estuarine and coastal ecosystems that emphasizes a balanced mixture of field and laboratory research. The research goals of the program are to (1) determine the key processes that regulate fishery production and (2) develop the capability to predict and assess man-related impacts such as contaminant additions and environmental alterations on fishery organisms and their habitats. Our primary objectives are to understand the species interactions and environmentally induced-variability in abundance of fishery resources in the South Atlantic and Gulf of Mexico estuarine-shelf ecosystem and the effect of human activities on these resources. Our research emphasis is in five major areas: (1) determination of the factors controlling growth and survival of estuarine-dependent fish and shellfish; (2) determination of the functional value of coastal and estuarine habitats; (3) evaluation of habitat mitigation methodologies and the value of mitigation in restoring viable fishery habitat; (4) effects of metal contamination on larval fish food webs, mechanisms of metal accumulation and metabolism in fish and shellfish, and monitoring of metallic and organic contaminants in estuaries; and (5) simulation modelling of the effect of pollutants on fish populations. The remainder of my statement will specifically address research conducted at the NMFS Beaufort Laboratory dealing with functional value of habitats, evaluation of mitigation technologies, and value of mitigated coastal habitats. I also will discuss briefly use of these data by the NMFS Habitat Conservation Division (HCD) which evaluates permits to alter coastal wetlands required by Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbor Act.

Before overviewing the habitat program at Beaufort, I need to point out that this is a multi-funded effort with estuarine research and data analyses being conducted primarily in North Carolina and Florida and coastal research off of Mississippi/Louisiana, South Carolina and North Carolina. Our recent and current research has been funded through two NOAA elements--Fisheries and the Ocean Assessment Division of National Ocean Services. In addition, funds are provided by the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, and Florida Department of Natural Resources for this cooperative effort.

Recruitment to Estuaries and Use of Wetland Habitats (Functional Habitat Value)

Many marine organisms, including economically important ones, use a mosaic of estuarine habitats as nursery areas. In these nurseries growth and survival is dependent on the size, accessibility, type of habitat available, and the interaction of physical, chemical and biological processes. Understanding the role that various estuarine habitats play in the growth and survival of living marine resources will provide a major key to effective habitat and fishery management. Knowledge of the current availability of various habitat types and rates of loss or gain and approaches to attempt to offset these losses, needs to be obtained on a regional and national basis. Unfortunately, we presently have a very poor understanding of the functional value of estuarine habitats, quality and quantity of various wetland types, and their rate of loss. Our ability to assess the effects of habitat alteration in the long term will depend on knowledge of how habitats function and their temporal dynamics, the quantity of habitat loss, and effects of alteration and loss. This information will be necessary to predict what losses would occur in living marine resources before they occur in reality.

At Beaufort, one aspect of our research is attempting to couple patterns of recruitment of larval fishes with subsequent distributions of juvenile fishes among various vegetated and unvegetated habitat types. Estuarine recruitment studies have been conducted at Beaufort Inlet near the southern end of the Albemarle-Pamlico Sound Estuarine System and this fall evaluation of recruitment through Oregon and Ocracoke Inlets will be initiated. This research is describing the seasonality of recruitment and relative abundance of fishery organisms. For example, in order of abundance, we found striped anchovy > Atlantic croaker > spot > summer flounder > gulf flounder > gray trout > silver perch, with the greatest number and diversity of larvae entering in late spring.

After entering the estuary, these fishes have a mosaic of habitats available as nursery areas, and we are only now beginning to understand how these habitats support fishery organisms. Recent research emphasis has focused on regularly and irregularly flooded salt marshes dominated by _Spartina_ and _Juncus_, respectively, seagrass meadows and red mangrove wetlands. Our emphasis on these wetlands arises from pressure to develop marshes and mangroves and numerous dredge and fill requests dealing with seagrasses.

Research on these habitats is demonstrating conclusively that they serve as important areas of refuge and food resources. In a one-year study just completed, 35 species of fish and 4 species of crustaceans were collected from the surface of a series of Spartina marshes. These species included southern flounder, summer flounder, spotted seatrout, striped mullet, sheepshead, gray snapper, red drum, blue crab, and pink, white and brown shrimp, all commercially and/or recreationally important. These organisms move onto the marsh surface on flood tide and then return to adjacent creeks or seagrass meadows on ebb tide. Conspicuous by their absence on the marsh surface are Atlantic menhaden and Atlantic croaker.

Field and laboratory research are being coupled to identify factors influencing settlement and habitat selection by selected species which are estuarine-dependent. Flounder are particularly important commercial and recreational species in the U.S. Of commercially important finfish, flounders rank second (behind salmon) in value nationwide, and in the recreational fishery of the Atlantic and gulf coasts the summer flounder is the third most important species (behind spotted seatrout and bluefish). The sounds of North Carolina appear to be major nursery grounds for the summer and closely related southern flounders. Despite this, habitat use and requirements of the early juveniles are not well known. Using a combination of laboratory experiments and field surveys, we have investigated the influence of substrate type on settling of early juvenile flounder. Laboratory experiments indicate that summer flounder prefer sand substrate as an initial settling site. Southern flounder, in contrast, prefer mud substrate and it appears that preference is dictated by the prey species present. Field surveys confirmed the predicted substrate preference and suggest that shallow shoreline habitat is preferred over deep or shallow open water habitat.

Irregularly flooded Juncus marshes also form important nursery habitat in North Carolina where they represent over 50% of the total coastal marsh acreage. In a joint study with East Carolina University and funded by the U.S. Fish and Wildlife Service, we are demonstrating that the only limits to fish movement throughout the marsh surface is availability of water on the marsh surface. We have collected fish as far inland as 2800 m from the nearest water body. These fish, primarily important forage species, feed on material produced within the marsh. Therefore, impounding of even irregularly flooded marshes will impede fishery utilization of the habitat.

Research on the recruitment to and relative value of natural seagrass meadows and mangrove habitats has been funded by the National Park Service's Everglades National Park, and our emphasis was on spotted seatrout and gray snapper. Postlarvae trout and snapper settled out of the plankton soon after they entered Florida Bay into mixed seagrass meadows having shoalgrass (Halodule wrightii), manatee grass (Syringodium filiforme) and turtle grass (Thalassia testudinum) rather than pure stands of turtle grass. Shoalgrass, because of its generally nearshore existance, tends to be impacted directly by man and indirectly by freshwater inflow pattern changes. Because this is preferred habitat for trout and snapper as well as pink shrimp, a major food source for these species, modification of these habitats can impact these fisheries. Our observations on coupling between fisheries and seagrass systems in Florida Bay are currently being tested as a result of a major loss of seagrasses in the Bay. The causes are unknown but the loss is estimated to be massive, and may result in reduced production of shrimp, trout and other fisheries in south Florida. This natural "experiment" may provide valuable insight into the tightness of coupling, the lag time between loss and resulting expression in the fishery, and the rates of system and habitat recovery.

The prop root habitat of red mangroves common to Florida and the Caribbean, also was shown to be quantitatively important and an important nursery for juveniles of such species as gray snapper, snook, barracuda, and numerous forage species. Day-night sampling provided indications that some species may use the prop root habitat during the day for refuge and then forage into the fringing grass bed at night to feed. Thus, as is true for most habitats, not only are data on functional habitat value important in making management decisions, but we also must know the linkages between and among systems.

Man's Impact on Fishery Habitat

Our recent research on man's impact on fishery habitat at the Beaufort Laboratory has been limited to literature reviews, and to field research on the impact of alteration of freshwater inflow patterns on abundance, distribution and composition of fish and to the influence of turbidity, on submerged seagrass meadows. The Laboratory's pollution research and modeling efforts are involved in the NOAA Benthic Surveillance Program and the development of mathematical models to predict the impact of pollutants on fishery populations but I will not discuss these efforts today. Instead, I will focus on research addressing physical habitat alterations.

We recently conducted a study in the 10,000 Islands area of Florida near Naples to assess the long term impact of excessive freshwater inflow to fishery populations of Faka Union Bay. In this study we employed a stratified random sampling design allocating our effort to the Faka Union Bay, and the bay system to both the east and west of the Bay. This study, funded by the Corps of Engineers, indicated that Faka Union Bay which receives excessive freshwater inflow from a canal system draining a large upland development area, maintained a fishery community that was considerably smaller than bays to either east or west that were not receiving excessive freshwater inflow. These data presently are being evaluated by the Corps of Engineers relative to developing a management plan to moderate freshwater inflows to Faka Union Bay.

Currently, we are conducting a joint research with the U.S. Fish and Wildlife Service and the Florida Department of Natural Resources to investigate the submarine light regime and ecological status of seagrasses in Hobe Sound, Florida, near Jupiter Inlet. Federal and state concern for the noticeable degredation of water quality in estuaries throughout the southeast has prompted research into the effect of water turbidity on seagrasses. Seagrasses are particularly vulnerable to the adverse impacts of turbidity, and the seagrasses of Hobe Sound are important nursery grounds for commercial and recreational fish and a food source for manatees. We have undertaken an intensive field study to examine the diurnal, seasonal and annual light regime in Hobe Sound in conjunction with research on seagrass distribution, abundance and growth. We also are examining the immediate impact of boat traffic on increased turbidity and decreased light reaching the plants. Preliminary data suggest that turbidity generated by vessels traveling through Hobe Sound contribute to reduced light penetration during the period when natural stress factors are high. We hypothesize that reductions in turbidity levels will result in increased light penetration and increased bottom area for seagrass to expand into, thereby potentially creating increased fishery and manatee habitat.

Habitat Mitigation

As I mentioned at the outset of this discussion, the Habitat Conservation Division (HCD) of NMFS and its area offices receive permit applications to review from the the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. Under the Fish and Wildlife Coordination Act, NOAA Fisheries is required to assess the potential impacts that each project may have on fishery resources and recommend modifications, denial, or no change. In its responsibility to review permit applications, the NMFS considers habitat conservation as its primary goal and mitigation is recommended only if the project is clearly water dependent, clearly in the public interest, and if there are no project alternatives. In fact, the southeast region NMFS requested about 49,000 acres of saltmarsh and 2,400 acres of seagrass mitigation between 1981-1985 relative to COE permits. Unfortunately, we do no know how much was actually mitigated or was successful. The Beaufort Laboratory assists the HCD related to this mandate by conducting literature reviews on mitigation, evaluating permits and occasionally proposed sites, and conducting research on creation and restoration methodologies (see attached publication by Mager and Thayer, 1986).

Although mitigation, as defined by CEQ, may take several forms such as recommendations for impact avoidance or reduction, habitat creation, restoration and mitigation banking, our emphasis has been in the area of compensation through habitat creation and restoration. The process of mitigation has become increasingly popular as the coastal zone continues to develop at an extremely high rate. In recent years, the technology to create vegetated habitats in particular, has improved and the practice of destroying productive natural habitat for development with replacement of mitigated habitat onsite or occasionally offsite is becoming more common. Review of the scientific literature, agency and contractor reports, however, provide numerous examples of failures as well as examples of success (see attached publication by Thayer, Fonseca and Kenworthy, 1986). For example, a recent publication from Corpus Christi State University reported that of 59 mitigation projects evaluated in south Texas (of which 14 involved impact avoidance), 53% were failures. In addition, 31% of the projects were in non-compliance with the permit.

Generally these evaluations are based almost solely on presence and/or general condition of the plant component of the system. Unfortunately, the process of mitigation involves more than just cultivating the vegetation. Salt marsh, seagrasses and mangroves all play an essential role in supporting estuarine productivity by cycling nutrients, serving as a source of detritus for coastal food webs, providing refuge for organisms from predators, etc. Thus, in order for mitigation to be considered successful, the newly created or restored habitat must provide the essential functions of natural habitats. Until recently, this functional equivalency was assumed to occur if the replanted habitat grew. Recent and current research, however, is demonstrating that many of these assumptions may not be true, and that in many instances there may be a multi-year, even decadal, lag between planting and functional system development.

At present, however, there is only a limited information base on mitigation of estuarine habitats. Present information on mitigation practices does not adequately quantify the extent to which approaches are most successful or whether habitat mitigation adequately compensates for the loss of natural habitat. The science of mitigation is still untested and imperfect, and there is little basis upon which to judge whether mitigated habitats support estuarine production to an extent similar to their natural counterparts. The Federal and state agencies which have recommended mitigation as part of the permitting procedure, simply have not evaluated the consequences of their recommendations, either in terms of success or failure. In many instances where evaluations have taken place, failures in the establishment of the plant base appear to have occurred due to poor site selection and/or inappropriate site preparation. A mechanism exists through the COE regulatory program to insure that: (1) performance standards for mitigation are based on the best available scientific information; (2) projects in fact are carried out in compliance with the standards; and (3) that the projects persist and are evaluated over time. However, agencies simply do not have the resources that are necessary to conduct follow-up evaluation and to properly address this issue (see attached publications by Mager and Thayer, 1986; Thayer, Fonseca and Kenworthy, 1986).

As a direct consequence of the limited data base on habitat creation technologies and mitigation follow-up, staff of the Beaufort Laboratory initiated a research effort assised by the U.S. Corps of Engineers and Florida Department of Natural Resources. The primary thrust has been on seagrass meadows because these habitats were beginning to receive more attention in permit requests; the technology for transplanting was limited; and the habitat has been established as a primary nursery area for important estuarine-dependent fishery organisms. For example, there are approximately 4.5 million acres of seagrass meadows in the southeast U.S. alone. These meadows support many commercially and recreationally valuable fisheries during all or part of their life cycle. If this acreage were added to present estimates of wetlands in the U.S., it would increase the national total by ~ 17%.

The impact on seagrass meadows by man's development of the coastal zone has resulted in reduction in fishery yields in areas such as Tampa (mullet fishery; K. Haddad, FLDNR, pers. comm.) and Chesapeake Bay (scallop fishery; R. Orth, VIMS, pers. comm.). Many of these losses are water quality related, reducing light reaching the plants and killing them. Other losses are associated with dredging and filling activities. Since some unavoidable loss of seagrass has occurred, we have been conducting research to determine transplanting or restoration technology, and whether restored seagrass systems perform the functions of the natural ones they are intended to replace.

To address these questions, we began a joint research program in 1981 with the COE to determine the appropriate techniques for seagrass planting, cost estimation, and performance standards. Between 1981 and 1985, we developed cost-effective restoration methods and promulgated recommended monitoring and compliance guidelines in the form of reports, published papers, seminars, and consultation for all involved local, state, and Federal agencies. More importantly, we conducted research on seagrass growth that allowed us to determine where meadows could not be restored (see attached publication by Fonseca, Kenworthy and Thayer, 1988). Because of the general acceptance and widespread ulilization of these recommendations by the Southeast Region and its field offices, these guidelines are continually refined as new data emerge and are being developed into a regional guidance document.

Although we have developed the technology to create seagrass meadows on damaged areas where environmental conditions permit, we do not know how quickly the desired fishery species return, if at all. This is especially true where, because a plant site is different from the site that was destroyed, we must plant a different species of seagrass that in turn may support different amounts or different kinds of animals.

To address this question, we are conducting joint research projects with the COE and the State of Florida Department of Natural Resources to plant seagrass beds and evaluate the return of animals both in terms of numbers and species composition in comparison to nearby, natural beds. Three dredge material islands were modified in 1987 to accept saltmarsh and seagrass plantings along the NC coast and 11 experimental seagrass plantings have been established in Tampa Bay in 1987-88. Similar marsh transplant studies are being conducted at the NMFS Galveston Laboratory. The geographic range of these studies, conducted under exacting experimental constraints and using common techniques, are allowing us to evaluate not only the value of restored versus natural systems, but to base that evaluation on scientifically valid comparisons. We are comparing the animal communities between seagrass species, how they are coupled with marsh systems, the effect of different size meadows, how seasonal changes influence interpretation, and the extent of interim losses of productivity. At this mid-point in the studies, it appears that when the same species of seagrass is planted as was lost in the temperate zone, it will take at least 2-3 years to restore animal communities. We will be able to evaluate the Tampa Bay plantings by the end of 1989. The long recovery time points out the need for changes in the permitting system to ensure that restored beds are monitored for the duration of these recovery periods. The recovery time for marshes appears considerably longer than that of some of the seagrass species.

Although most agency comments on mitigation recommend both on-site and in-kind compensation, available trade-off habitat may not exist on site. Because the relative value of habitat types is not well understood, mitigation recommendations occasionally include in-kind (same species) but off-site compensation rather than out-of-kind (different species) replacement. At Beaufort we have one offsite mitigation project that is being evaluated in which upland was graded to estuarine levels and transplanted with marsh grass. After three years, sediment and microbial parameters do not resemble those of the adjacent natural marsh, plant biomass is statistically less, and there is only limited use of the area by spot (Leiostomus xanthurus) and penaeid shrimp compared to the adjacent system. This area is in a low salinity region of the estuary compared to the marsh that was removed for development. A nearby marsh is used by flounder, spotted seatrout, spot, shrimp and a number of forage species. Thus, although fishery habitat has been created, it was at the expense of habitat utilized by economically more valuable species and, in a three-year period, the off-site marsh has not attained the habitat value of the adjacent natural marsh.

Evaluation of Wetland Status

Despite the growing awareness of the role of coastal wetlands and the difficulty in restoring their fishery value, a data base documenting their distribution and abundance is lacking. Most existing inventories have been conducted at the state and local level and there has been no uniform system or reporting. The National Wetland Inventory has mapped the wetlands of most of the coastal states using a uniform classification system, but only about 1200 of the available 4500 maps are digitized because of the high cost involved. Therefore, very little detailed coastal wetlands acreage data presently are available, and data on wetland acreage by coastal county are available only for New Jersey and Maryland. Additionally, what maps that do exist provide information only on emergent habitats and not on submerged aquatic vegetation that has proven to be critical fishery and wildlife habitat.

Recognizing this information void, the Beaufort Laboratory and the Strategic Assessment Branch of NOAA's National Ocean Service initiated analysis of a grid sampling approach that could be used to rapidly assess, with reasonable accuracy, the distribution and areal extent of

12 coastal wetland habitat types in the coterminous U.S. using the existing maps developed by NWI. Statistical evaluation of the technique indicated that a grid cell size of 45 acre resolution provided 900 sampling points for a 1:24,000 scale NWI map with acreages computations generally similar to those where NWI maps had been digitized. These grid-sampled data presently are being aggregated by county, estuary and hydrologic unit. Since the program's inception in June 1986, the northeast region from Maine to Connecticut and the Gulf of Mexico coast from Monroe County, Florida - Texas have been completed. In addition, 100 NWI maps in North Carolina, 150 in California and 350 in the New York to Virginia area have been grid-sampled. This grid sampling effort should be completed this calendar year.

Seagrasses have been almost totally ignored in most attempts to assess wetlands acreages in the U.S. Yet, these habitats are critical nursery areas, are impacted by both natural and man-induced perturbations, and permit requests to dredge and fill these habitats are on the rise. Staff at the Beaufort Laboratory recently initiated an effort to map submerged aquatic vegetation in the Pamlico Sound area of North Carolina through funding from the Albemarle-Pamlico National Estuarine Program. Based on preliminary estimates from our overflights and limited literature and consultation with university personnel, the area of seagrasses between New Jersey and Texas is estimated to be in the neighborhood of 1.1 million hectares, of which 96% occurs in Florida, Texas and North Carolina; 1.5% of the total for this area occurs in Maryland-Virginia. In fact, one county in North Carolina contains more seagrass than exists in the Chesapeake Bay. This can be compared with an estimated 1.7 million hectares of marsh for the same area. We believe that the existence of vital fishery habitat require mapping and evaluation if NMFS and other agencies are to provide information-based guidance in the conservation, protection and enhancement of fishery resources in the southeast.

An Example of Information Synthesis

Recently, we have begun to synthesize some of the fisheries and wetland information into a conceptual model. The potential utility of large-scale, generalized conceptual modeling was demonstrated for us by an attempt of our Laboratory to relate fishery yield to primary production for the marsh dominated portion of the east coast of the U.S. Using a top-down approach, we summarized total harvest from the system and known information on the diets of yield species and their prey. By assuming growth efficiencies (based on best available information in the literature), we calculated the amount of primary production that would be required to support the observed yields over a twenty-year time period. Just the yield organisms alone require 10% of the total primary production. When the natural mortality of the yield populations is accounted for, plus the production of all forage fish that are not directly consumed by the yield organisms, the cost of supporting the system increases to a minimum of 66% of the total primary production. Only 58% of the total primary production comes from algae; the remaining 42% comes from vascular plants (marsh- and sea-grasses). The system, therefore, must get an additional 8% of its needs from the 42%, i.e. vascular plant production. This represents a minimum of about 20% of the marshes, assuming that none of the marsh production is respired away before entering the fishery food chain.

A traditional view of this marsh production is that it goes into a detrital pool and gets partially respired away before entering yield organisms. If the detrital chain leading to harvested fishes is only 40% efficient (a very high efficiency), then all of the marsh and seagrass production would be required to support the historically observed average yield from this system. This model implies a tight connection between the habitat and the system yield from a variety of species. Furthermore, it demonstrates the utility of a broad view when considering the response of a system to environmental perturbations. Over a twenty-year period the relative proportions of high and low-trophic level organisms in the catch has changed considerably, but the total amount of energy required to support the catch remained fairly constant. This implies an energy limitation in the system and not much opportunity to "manage" individual species yields without impacting other species in the system. The model serves another useful function in directing our research to those areas we know least about and to which the model is most sensitive--particularly the energy requirements of forage fish species, and the energetics of the detrital food chain.

NMFS Regional Office and Center Interaction

The NMFS Regional Office in St. Petersburg, FL and its field offices in Beaufort, NC, Panama City, FL, Baton Rouge, LA, and Galveston, TX, are responsible for protection and management of marine fisheries in the Southeast Region. They have the responsibility of reviewing and commenting on permits submitted to the Corps of Engineers seeking permission to alter coastal wetlands. The impetus for most of the habitat research and synthesis activities I have described is not only the basic lack of information on critical fishery habitats but also specific problem areas or information needs that have surfaced as a result of the Regional Office's mandates to protect and conserve fisheries and their habitats.

In the Southeast Region, there is a close working relationship between the Regional Office and the Southeast Fisheries Center habitat program which, as I mentioned earlier, occurs through research information transfer, direct assistance on permit reviews, site visits and preapplication meetings with potential permitees (see publication by Mager and Thayer, 1986). In 1977, 1982, and 1988 joint habitat research-habitat management workshops have been held in Beaufort, NC to better coordinate research activities and habitat management information needs, and to discuss the priority scientific information needs in the Region. Additionally, we have established a liaison position in the habitat program, part of the responsibility of which is direct interaction with the Regional Office and Fishery Management Councils on habitat matters in the Region. Based on these workshops, a generic priority needs list has evolved that deals with information on: (1) impacts of physical modification of estuaries and coastal wetlands; (2) impacts of alteration of freshwater inflow patterns on habitats and fishery species; (3) impacts of eutrophication; (4) viability of mitigation technologies; (5) impacts of organic and inorganic chemical pollution; (6) pathogen contamination; and (7) cumulative effects of habitat impacts.

These are generic information needs throughout the southeast, but each of the field offices have specific problems that are more or less unique to the geographic area of responsibility. Staff from the

Southeast Fisheries Center assist on these specific issues in a variety of ways when requested. We have helped HCD and COE staff design appropriate biological sampling approaches to address potential impacts from an activity and provided reviews on the resulting reports. We also have served as technical representatives of the Service at the request of the HCD dealing with specific issues, such as shell dredging and impacts of coastal impoundments.

Before I close this round table discussion material, I wish to make one addition point: NOAA is responding to these growing problems and concerns by developing an "Action Plan for the Coastal Ocean in Crisis: Science for Solutions." This Plan is now being shaped by an inter-Line Office Working Group as part of our FY 1990 budget inititative to be forwarded to the Congress via the Department of Commerce and the Office of Management and Budget. The Plan has three principal program goals:

1. Fisheries productivity -- to provide better forecasts of the influence of fishing, habitat degradation (pollution and alteration), and natural forces on living marine resources.
2. Environmental quality -- to understand influences of natural variations and human activities on the quality of the coastal environment and to make better predictions of the results of society's activities, within the context of natural variation.
3. Coastal hazards -- to provide better natural hazard predictions for both short-term warning and long-term planning and design capabilities at both local and national levels.

This Plan will get underway in FY 1989 using some existing and redirected resources. In the short run, NOAA proposes to make the most of what its component organizations know by integrating and synthesizing presently - available data and information. In the long run, however, additional program enhancement may be required to meet expected needs of the local, state and federal communities for scientific solutions to the ever-growing problems I have addressed.

This concludes my roundtable discussion material, Mr. Chairman. I will be glad to answer any questions.

APPENDIX

inclusion in the record. Mrs Johnson

ARTIFICIALLY CREATED WETLANDS: MYTH OR MYSTICISM

Robert J. Pierce, Mary C. Landin and Hollis H. Allen
U. S. Army Corps of Engineers

INTRODUCTION

The terms "artificial wetlands" and "marsh creation" conjur-up visions to some of synthetic, tacky plants and to others attribute divine powers to those engaged in such endeavors. We in the Corps submit that "constructed" wetlands are no more artificial, albeit more complex, than is the water formed by energizing hydrogen and oxygen in a reaction vessel. When the proper elements are combined in a well thought-out design the outcome is predictable: perhaps not as exact as combining hydrogen and oxygen, but nonetheless predictable. Man's continuing endeavors to assist natural wetland development processes should properly be termed "construction."

Yesterday, we heard the recurring theme over and over that, "Yes, we can construct wetlands successfully" (e.g., Shisler, Lewis and Garbisch) in both fresh and salt water environments. Ed Garbisch even ranked ease of wetland construction in order of increasing difficulty:

1. Fresh tidal marshes;
2. Salt tidal marshes;
3. Fresh, non-tidal marshes with constant water supply;
4. Seasonally flooded floodplains or wet meadows;

5. Temporarilly flooded herbaceous marshes (e.g., prairie potholes); and
6. Fresh marshes with groundwater as only hydrologic component.

Without fail, each of the speakers in the past day and one-half has stated that the most important factor in determining success of wetland projects is accurately constructing the elevational grade in proper relation to existing hydrology. All of the Corps research confirms that conclusion.

Another recurring theme addressing the level of success has been the importance of the contribution of open water and fringe upland. Joe Shisler suggested that a constructed wetland should be 50 percent open water and fringed by a protected upland in order to most closely parallel the functions of a naturally developed wetland and to control nuisance species. Robin Lewis and Robert Brooks both observed that seldom is credit given for open water or upland fringe when regulatory and resource agencies are discussing mitigation. The Corps as a regulatory agency and those resource agencies which advise it need to give thoughtful consideration to this area in formulating mitigation plans.

are we getting credit for these!

Are constructed wetlands "identical" to naturally occurring ones? No, but then no two natural wetlands are identical either. Furthermore, why should they be? One of the features that makes wetlands so interesting and so valuable is the variability within and between types.

Does each constructed wetland serve all the functions that Paul Adamus attributed to a natural one? No, but then few if any natural wetlands do either. The construction of wetlands is the perfect opportunity to select for those functions most needed in a particular area.

Do soils in recently constructed wetlands demonstrate definite hydric characteristics? No, but then neither do the soils of wetlands behind recently constructed beaver dams or along meandering streams.

Can we immediately reconstruct a forested wetland? No, but then does clear-cutting the timber on a natural wetland eliminate its value? In many cases the regression to an earlier successional sere increases the diversity and ultimate ecological value of the total system.

Do we know everything about constructing wetlands? Obviously not. But we do have enough technical and applied knowledge to construct wetlands, both fresh water and salt water, under many different circumstances and, in fact, in many situations where natural processes alone would be unable to do the same.

When we were invited to participate in this symposium, we were asked to address three questions:

1. Do we agree with the research needs and strategies for the EPA Wetland Research Program;
2. What research does the Corps have underway or planned; and
3. Will we cooperate with EPA and will our research duplicate EPA's?

We will address each of these questions in order.

EPA RESEARCH NEEDS AND STRATEGIES

Eric Preston began this session with a synopsis of EPA's original wetland research plan. That three-phase plan considered cumulative impacts, water quality and mitigation as the three most crucial areas of wetlands research that EPA could consider. Within the mitigation aspect, Eric identified three major thrusts:

1. Evaluate trends and success of past restoration/construction projects;
2. Develop monitoring methods; and
3. Develop design guidelines.

Those three areas have a definite "technocratic" twist to them, i.e, each is designed to provide a directly applicable, policy-oriented tool for use by those in the regulatory program. On the surface they appear to be relatively straight-forward tasks to pursue.

However, after listening to Milt Weller's presentation this morning, we have concluded that EPA remains a long way from narrowing and refining their objectives. The compilation which he presented is an impressive array of research topics. Most of them, however, are basic rather than applied. We believe that it is imperative that EPA decide whether it will pursue a basic research program or a more applied one as outlined in its original charter. Until it has refined its plan, neither the Corps nor anyone else can agree or disagree with the needs and strategies of the program.

Before leaving this topic, let me react to the three approaches discussed by Dr. Weller: functional, comparative and experimental. It is logical to compare constructed wetlands to those derived from natural processes. We believe, however, that most attempt at a statistical comparison probably will not yield satisfactory results. As discussed earlier in this paper and by many of the other authors of this proceedings, natural wetlands are extremely variable. That natural variation, not only between types of wetlands but between wetlands of a single type, will mean that any type of statistical analysis will require extensive and probably prohibitively expensive replication of samples before any confidence in the results can be demonstrated. We have already encountered this in comparsions of manmade to nearby natural wetlands. Each reference marsh was unique: differing in age and other critical criteria (e.g. relationship to shoreline, and location in a river or coastal system) when compared to the constructed marsh.

Experimental research facilities such as those of the Delta Research Station and the Des Plaines Project will undoubtedly provide very useful data. However, the range of variables and the types of wetlands that can be analyzed using this approach are limited. In addition, since such facilities are themselves constructed, the problem of comparability to natural systems will still remain a question.

The final approach, that of function, is the one that we are pursuing and believe will pay the greatest dividends in the EPA program as well. Functions can be isolated relatively easily, at least conceptually and for many, well developed methods of analysis exist. In addition, specific functions can be assessed either on a qualitative basis (e.g., with the Adamus method) or for some functions quantitatively (e.g., habitat evaluation procedure). Most importantly, mitigation can be designed to replace those lost functions which are most important to the overall regional or local ecosystem.

The final concept that needs to be incorporated into wetland mitigation policies and procedures is one that Joe Shisler first mentioned and was reiterated by Robin Lewis and Robert Brooks. We cannot construct wetlands in a vacuum. They must be an integral part of the ecosystem. This means that open water and a buffer fringe of upland are as important to the design as the vegetated wetland itself. From an administrative standpoint, we should not expect the private landowner to donate these areas above and beyond the amount of constructed, vegetated wetland that is expected of him. Rather, the overall amount of area needed to mitigate for a particular loss needs to encompass the open-water and upland buffer. This in turn may mean that less wetland vegetation will be planted but a better system constructed to satisfy the mitigation requirements.

CORPS WETLAND RESEARCH PROGRAMS

The Corps of Engineers has had active research programs on various aspects of wetlands for more than a dozen years. Our original research work was concerned with constructing wetlands from dredged materials, determining the ability of wetlands to rebound from physical stress, and our responsibility to control nuisance aquatic plants. Our research has expanded greatly over the years. Today, we have over 30 full-time professional wetland scientists as well as hundreds of other researchers in related fields available to interact with us on all of our wetland programs.

Over the years we have constructed wetlands across the country in both fresh water and marine environments. Since recent scepticism has arisen over construction, in freshwater environments, I will limit my discussion to examples of some of our efforts in them. All of these examples have been monitored by our Waterways Experiment Station (WES) for many years.

In 1973, we built a fresh-water marsh at Miller Sands Island: a 235-acre site in the Columbia River in Oregon. The original 12-acre wetland has not only survived and flourished, but has increased in size three-fold over the past 14 years. This marsh was planted with slough sedge, Lyngbye's sedge, arrowgrass, broadleaf arrowhead, tufted hairgrass, and several other "minor marsh" species. It has also colonized with other species, and is now a very diverse intertidal marsh. The marsh is heavily used by nutria, muskrat, waterfowl, and waterbirds, while the island itself is frequented by the endangered Columbia White-tailed Deer and 108 species of birds, including numerous bald eagles who fish the channels around the marsh. This island is part of the Lewis and Clark National Wildlife Refuge. The three habitat development areas (upland, wetland, and dune) on Miller Sands have been equal or greater in value in wildlife, fisheries, benthos, and vegetation biomass and diversity when compared to three nearby natural marsh/uplanded sites (Landin, et al. 1987).

The Pointe Mouillee Wetland, is a 4600-acre site built by the Corps Detroit District and the Michigan Department of Natural Resources in western Lake Erie. Rather than planting it, the site was allowed to colonize naturally, and sediment has been allowed to accumulate in backwater, protected areas to raise the lake bottom and encourage the growth of emergent species. The key to success at Point Mouillee has been achieving the correct engineering grades and elevational goals. This site is part of a state wildlife management area, managed by the State of Michigan. It receives tremendous waterfowl, shorebird, and waterbird use during migration, and waterbirds nest in the wetland and on the dikes. The long-term management strategy for the site includes establishment of a visitors' center, hiking trails, fishing piers, a marina, and other natural resource and recreational activities. The pre-disposal site worries about possible contaminants in the sediments affecting wildlife and fisheries turned out to be unfounded, and contaminants have not been a problem. While full achievement of anticipated emergent marsh goals at Pointe Mouillee has been slowed considerably by the record high water levels in Lake Erie, we fully expect those goals to be met as lake levels drop (Landin, 1984).

Lake of the Woods is a Corps-built, freshwater wetland, at Warroads, Minnesota, on the border with Canada. This site was formed by required maintenance dredging of the Warroads River and harbor. It has colonized with river bulrush and cattails. Both the portions of the island that are emergent and those that are bare are heavily used by black terns and other waterbirds that summer in Lake of the Woods. This site is a cooperative venture, built and monitored by the Corps St. Paul District with a large share of the monitoring work being handled by the Minnesota Department of Natural Resources. This site has also been temporarily affected by record high water levels, but in recent months water levels have dropped and the island wetland is continuing to develop (Landin, 1985).

As with any research effort, we are not without our share of early failures. One of the earliest of our marsh construction efforts was at Windmill Point in the James River, Virginia. There, our Norfolk District constructed a rectangular berm and filled it to design elevation with dredged material from the adjacent channel. We had contracted with Ed Garbisch to plant the site, but before he and his crews could do so, the area colonized itself, naturally. Ed was left with only the berms to plant with herbaceous vegetation. The marsh was exceedingly productive between 1975 and 1983, then, much of it was washed out due to severe river flooding. That effort did teach us, however, that islands shaped to match river hydrology are much more effective at withstanding floodwater erosion than rectangular ones, and that woody vegetation planted on the dikes probably would have held the island against river flooding (Landin and New Ling, 1987).

Much of our recent research in fact has dealt with the critical issue of controlling erosive energy. Marsh development technology has expanded to the point that it is now possible to develop marshes in areas that are exposed to moderate to high wave energies. These tend to be those directly exposed to average fetches of more than 5 miles. Examples of such efforts, developed and employed by the WES, include using expedient breadwaters and new techniques of stabilizing plant stems (Allen, et al., 1986).

One method of establishing marshes in a moderate to high wave-energy environment is to couple breakwaters and transplanted sprigs landward of the breakwater. Allen, et al. (1986) reported successful use of a floating tire breakwater to develop a marsh in Mobile Bay to stabilize a dredged material island. Recently, similar breakwaters have been used by WES and the Corps St. Louis District to develop marsh and transitional wetland vegetation for shoreline protection at Carlyle Lake, Illinois.

Other effective methods exist to establish marshes in moderate to high wave-energy environments that are more visually attractive and possibly less expensive than breakwaters. The concept is to strenghthen the attachment of the plant to the substrate to reduce the likelihood of its being washed out by wave attack and thereby avoid the necessity of a breakwater.

One of these is a plant roll. A plant roll is constructed by placing soil and transplant clumps of a marsh species such as smooth cordgrass or softstem bulrush on a strip of burlap. The sides and ends of the burlap are brought together around the plants and fastenend with metal rings. This creates a long roll of plants and soil. Such a method has been used successfully to protect dredged material shorelines in Mississippi Sound and Mobile Bay, Alabama. Like breakwaters, the plant roll technique has also been used recently to establish a softstem bulrush marsh at Carlyle Lake, Illinois.

One other promising method for use in higher wave-energy environments is an erosion control mat laid like carpet on a substrate. After placement, single stems of marsh grass are planted in the mat through slits cut in the material. This technique has been used successfully in demonstration plots along the Gulf Coast at Bolivar Peninsula, Texas, where the marsh grass has been exposed to fetches of 22 miles.

Day-by-day, the Corps and those other individuals and groups actively constructing wetlands are advancing the state of knowledge. The basics are well understood (U.S. Army Corps of Engineers, 1986). In fact, the Corps has been teaching a practical wetland construction methods course for the past eight years. By the end of this year, we will have available for distribution a video cassette on shoreline stabilization using coastal wetland vetegation.

I don't want to leave you with the idea that there aren't problems, especially, in using construction as a form of mitigation in the regulatory arena. By and large, however, these problems are not technical. Rather, they result either from imprecise definition of the objectives of the mitigation and methods to accomplish them or from insufficient compliance monitoring. Both problems are symptoms of a more pervasive problem - the lack of funds and personnel to administer the program effectively.

Last year Congress cut our budget and prohibited us from transferring additional funds into the program. This year we have gone as far as to have President Reagan formally sign a proposed amendment to the budget, specifically allowing us to transfer $5 million more into the budget: not to make us fat, but just to keep us afloat in our regulatory program. Despite the resource constraints, we are not standing still in this arena, however. A year ago our Baltimore District completed a study of compliance and effectiveness of mitigation efforts associated with permit projects. While initial compliance and success was only about 50 percent, after prodding of permittees, success is now seen in 15 of 16 projects. The Corps Norfolk District found similar results in a study they conducted. Approximately one-third of the projects they reviewed were deficient and had to have corrective measures required. Similar studies are underway in New England and

Jacksonville Districts.

Because of the workshop theme, we have concentrated our presentation thus far on wetland construction. At this point we will diverge briefly and list some of the other research areas that we are pursuing.

This past February we began a one-year test of our multiple parameter approach to delineating wetlands. This test culminates four years of intensive research, field verification, review and revision. The response to the effort has been very positive and we look to this coming year for a unified method endorsed by both the Corps and EPA.

We are continuing our studies of the last five years on contaminant availability from sediments by both marsh and upland plants and animals. We have been coordinating this effort with American scientists and have established an International Advisory Board with whom we have been working closely. In addition to short-term studies, we will be monitoring over the long-term, the movement and fate of contaminants from freshwater sediments at Times ~~Tynes~~ Beach, Buffalo, New York, and marine sediments at Black Rock Harbor, Connecticut.

Our aquatic weed control research program has been in operation for over 20 years. Over those years, we have evaluated and developed biological chemical, mechanical, and physical methods for controlling nuisance vegetation. One aspect of this program has been to seek-out, import, quarantine and evaluate for effects on indigenous communities, those natural control organisms of exotic plant species which have been introduced into the United States.

Our major wetlands research thrust for the next several years centers around the various functions of wetlands and how to place a value on them. Over the last two years and working closely with the Federal Highway

Administration, we have computerized the valuation system developed by Adamus (1983) and updated the literature compilation (Adamus and Stockwell; 1983) upon which it was based. That effort has yielded a user-friendly program (Wetland Evaluation Technique or WET) for IBM PC compatible computers which is already available, as well as a revised literature compilation which will be available in the next four months.

Because WET is based on the technical literature many data-gaps exist. We have prioritized data needs (Clairain, et. al., 1985) and intend to fill those sequentially as funding allows. We are beginning our second year (of a 3-year study) of detailed analyses of biological, chemical and physical functions of a large tract of bottomland hardwood wetland on the Cache River in Arkansas, our top priority. From the bottomland hardwoods we will be moving in time to the wetlands of the north central region, the southwest and on through our priority list.

COOPERATION AND DUPLICATION

We have briefly summarized our research activities in wetlands and to conclude will comment on the final question that we were asked to address: i.e. will we cooperate with EPA and will our research duplicate its research.

Throughout the history of our wetland research programs we have maintained close liaison with those interested in the subject. In recent years and thanks in large part to the organizational efforts of Hank Sather and Bill Wilen, we have actively participated with the Interagency Wetland Value Assessment Group. We do not have nor can we foresee any reason why we would terminate that cooperation.

Finally, because of the undefined nature of EPA's program, it is not possible to comment on how duplicative it will be. However, from a philosophical standpoint we must close by posing the more appropriate question: "EPA, as the new kid on the block, will your study duplicate our ongoing programs?"

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State and Local Activities

An Assessment of Wetland Mitigation Practices in Washington State

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Of the many issues associated with the Clean Water Act's §404 program, the one debated most often is wetlands mitigation.[1] While mitigation has been readily accepted within the §404 permitting process, various researchers have begun to question the success of mitigation projects. The cries for caution are best summarized by Zedler's (1986) statement that "on a national level, the technology of wetland creation/restoration is experimental and unpredictable."

Regulators often cite the lack of technology for creating wetlands as the reason for many project failures. This statement may be well founded; however, a closer look reveals that other factors contribute to poor success rates. Inadequate mitigation negotiation, documentation, planning, monitoring, and enforcement may doom projects before they ever reach a stage at which we can blame technology.

Background

We became interested in mitigation design while investigating a project that allegedly used unsuitable materials in the construction of an intertidal mud flat. A careful review of the §404 permit issued for the project revealed that the type of material, the construction techniques, and the type of monitoring strategy were not specifically designated. The Army Corps of Engineers, as the permitting agency, assumed that careful planning and proper materials would be used. This proved an unfortunate assumption that caused difficulties when enforcement actions were taken against the project proponent.

With our experience from this project, we decided to examine the files on other §404 permits that were issued with mitigation requirements. Surprisingly, this was the most difficult task in our investigation. There was no tracking system to identify projects that required mitigation; we simply had to review all of the §404 files and interview people who had been involved with these projects during the negotiation stages of permit development.

We finally identified 35 projects over a six year period, 1980 to 1986. No projects were found with mitigation requirements earlier than 1980. We did not review projects after 1986 because we felt that project areas should complete at least one growing season before they were included in the study.

The study was completed using existing file data; we did not attempt to examine the wetlands in the field. Our goal was to determine if the planning process generated well designed, well planned projects that recouped wetland losses by mitigation.

Study Results

Planned mitigation still resulted in a substantial net loss of wetland acreage. Few applicants (7 of 35) proposed to compensate lost wetland acreage on a one to one basis; even fewer (6 of 35) proposed compensating wetland acreage on a greater than one to one basis. Between 1980 and 1986, mitigation negotiations resulted in the exchange of 152 acres of natural wetlands for 100 acres of created/restored wetlands, a proposed replacement rate of 67 percent.

Planned mitigation resulted in a net loss of wetland diversity. Seventy-three wetland habitat types[2] were permitted to be filled; 49 habitat types were proposed for mitigation, a net proposed replacement rate of 68 percent. This loss was not equally distributed over the major

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[1] For the purposes of this study, the term mitigation is defined as compensation for wetland losses in the form of wetland creation, restoration, or enhancement.

[2] As classified by the United States Fish and Wildlife Service wetland classification system, Cowardin et al. (1979).

wetland types. Estuarine systems lost the least diversity even though they absorbed the largest number of projects. This may be due to the push by the public and resource agencies to preserve anadromous or other commercial fisheries habitat.

In contrast, no forested wetlands were replaced. Forested wetlands are complex systems which take many years to mature. It is likely that the ecological understanding of these habitat types was not sufficient to create them and, therefore, replacement was not required.

Wetland losses occured in time as well as space. Of the twenty-six completed projects (nine have not been completed), only two projects had completed mitigation prior to the elimination of the original wetland. The time lags between project initiation and completion represented losses of at least one to three growing seasons per project. Project directors did not consider resource functioning time a critical aspect of compensation.

Mitigation designs were not effectively incorporated into the final §404 permits. Documentation of mitigation plans and their various components within the §404 permits was inconsistent and incomplete. In only 22 (63%) of the 35 permits in which mitigation was negotiated was the concept of mitigation even mentioned within the final permit. Resource agencies required monitoring studies in 18 cases (51%), but in only 11 permits (31%) were the monitoring requirements actually documented.

Nineteen of the 35 permits (54%) included some type of design criteria. No criteria were mentioned prior to 1982; 16 permits (46%) contained no reference to criteria. The design criteria most frequently incorporated into the permits were area, location, and construction methods. Although these are potentially the easiest to enforce, they do not determine or guarantee ecological success.

Routine follow-up procedures for mitigation were lacking. There was no routine procedure for tracking mitigation compliance. This may have contributed to the fact that five mitigation projects were never constructed or restored as negotiated. Because of inadequate documentation, it is unlikely that the projects will ever be completed. Monitoring was required in 18 of the 35 mitigation projects; contingency planning was required in only 3 of 35 projects. Monitoring studies applied within the mitigation process should trigger the use of contingency plans as needed, and yet these two project components were rarely required together.

In summary, there has been no consistent, standardized process for negotiating, planning, implementing, or evaluating wetland mitigation projects. No single agency, federal or state, has maintained comprehensive records of wetland mitigation projects. The information contained in federal agency §404 project files is dispersed and incomplete. Monitoring results are sparse, construction/restoration completion dates are inconsistent, and the degree of functional success has rarely been documented.

Recommendations

Our understanding of wetland ecosystems is far behind that needed to consistently replace lost wetlands. The rates of mitigation failure and wetland losses are high partially because regulatory and resource management agencies have failed to adequately negotiate, plan, and track mitigation projects.

Wetland losses will continue until the public places a higher value on the resource. Consequently, regulators will continue to require mitigation to offset the losses. We do not recommend that mitigation work be abandoned for, as Race (1985) states, "the technology is an important tool for balancing the demand for coastal development with the need for the conservation of wetland habitats." However, we recommend significant improvement in the mitigation planning process to ensure a higher degree of success for created/restored wetlands and to reduce net losses. Mitigation negotiations have improved over time, but more consistency is needed.

Several authors have recommended procedures for the development of mitigation plans which might improve our chances of resource replacement both in negotiations and in reality (Race and Christie, 1982; Baker, 1984; Race, 1985; Cooper, 1986; Harvey and Josselyn, 1986; and Zedler, 1986). We have compiled their recommendations and our own in the following list of criteria for mitigation projects:

1. *Conduct an ecological assessment of wetlands to be lost to development.* Understand the chemical, physical, and biological interactions of a system before replacing it.
2. *State goals.* Include in the mitigation goals a discussion of the functions and values lost, and those planned for replacement.
3. *Establish methods.* Answer the questions of what, where, when, and how (i.e., acreage of mitigation, wetland habitat type(s) to be constructed/restored, location, dates for beginning and completing the project, methods of construction, and maintenance requirements). In order to ensure fair compensation, require more acreage for replacement than was lost to development.
4. *Set standards for success.* Include a qualitative and, to the extent possible, a quantitative description of what will be considered a successful, functioning wetland in the permit.
5. *Design a monitoring strategy.* Design a monitoring system to determine whether or not the mitigation goals and standards of success are met.
6. *Formulate a contingency plan.* Formulate a plan outlining possible restorative measures in case the mitigation fails or only partially succeeds. Include a performance bond to ensure that the applicant complies with the terms of the mitigated agreement.

Additional recommendations to improve the existing programmatic aspects of mitigation are as follows:

1. Establish a single, structured format for the development of mitigation projects to ensure that the above criteria are included.
2. Discuss mitigation plans with all appropriate agencies and groups in the early stages of the process.
3. Keep all information, requirements, and monitoring results pertaining to mitigation projects in at least one comprehensive file system.
4. Attach a complete mitigation plan to the §404 permit in such a way that the permit is revokable if the terms and conditions of the plan are not met. In addition, reference the mitigation plan in the permit.
5. Establish a structured review program which assigns responsibilities for inspecting completed mitigation sites, evaluates success, and reports to the agency responsible for enforcing the mitigation agreement.
6. Finally, realize that mitigation is not "the only answer" to development/preservation conflicts. Before undertaking mitigation, fully understand the limits of the technology of wetlands creation. Some habitats (e.g., bog

systems) cannot be replaced within our short time references. Work to incorporate this understanding in our public policy.

The creation and restoration of wetland habitat does have a place in wetlands regulation. However, it requires wetland managers to incorporate planning and design information as critical elements of permit processing. We would not construct a building without an understanding of building materials and a complete set of work plans; wetland mitigation must be approached with the same consideration for feasibility, design, and engineering.

For more information on mitigation, see *National Wetlands Newsletter*, Vol. 8, No. 5, pp. 2-18.

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The RIM Program: Minnesota's New Approach to Wetlands Restoration

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Before its settlement by Europeans, Minnesota had approximately 13 million acres of wetlands. Since that time, over 9 million acres, or about 75 percent, have been lost. In the southwestern, central, and northwestern agricultural regions, this figure reaches 95 percent because of extensive wetlands drainage in the 1960s and early 1970s.

Now, an innovative Minnesota state program under the Reinvest in Minnesota (RIM) Act of 1986 is helping to bring wetlands back. The RIM Reserve Wetlands Restoration Program pays landowners to restore their previously drained wetlands and convert them back to their natural state.

Background

In the early 1980s, concern grew over the dwindling of Minnesota's natural resources and the effect on the state's tourism industry. Governor Rudy Perpich responded by putting together a citizens' commission on hunting and fishing to research the issue. The commission drew a parallel between private industry's growth by capital reinvestment and Minnesota's tourism industry. If it works for private industry, why not for natural resources? They recommended reinvesting at least 6 percent (equivalent to Minnesota's sales tax) of the one billion dollars that tourism brings to Minnesota each year. Their proposal, and the resulting legislation, was dubbed RIM for "Reinvest in Minnesota."

After the citizens' commission report was made public in 1985, wildlife, environmental, and agricultural groups formed a coalition to lobby for the passage of a Reinvest in Minnesota law. The bill passed that year, but it was not funded.

Upset over the legislature's failure to take RIM seriously, the coalition mobilized and in 1986 lobbied for funding. They succeeded; the 1986 bill provided 10 million dollars for a RIM Reserve Program administered by the Minnesota Department of Agriculture. In 1987, the legislature funded RIM Reserve for a two-year period. Nine million dollars from bonding funds was set aside for easement acquisition and 1.8 million dollars from general funds was provided for administration.

RIM Reserve's initial intent was to restore wildlife habitat that had been lost to farming. Its first program, Marginal Ag Lands, was created to take highly erodible and vulnerable farmland out of production. In 1987, however, the definition of marginal ag land was expanded to include previously drained wetlands. As a result, drained land can now be enrolled in the RIM Reserve Wetlands Restoration Program.

Wetlands Restoration acquires rights to cropping and grazing land through perpetual easements. Landowners receive a per-acre payment based on the cash rental rates in their area. Payment is made in one lump sum when the easement is procured.

Program Administration

To be enrolled in the program, converted wetlands must be at least one acre in size. Up to four acres of upland nesting cover per acre of restored wetland may also be enrolled. Eligible land is land that has been legally drained, has been cropped for at least two years between 1981 and 1985, and is suitable for cropping at the time of enrollment. In addition, the applicant or a relative of the applicant must have owned the land for at least three years prior to the time of enrollment. The area cannot currently be set aside under another state or federal land retirement program.

The RIM Reserve Wetlands Restoration Program reimburses the cost of cover seeding and assists in paying for any structures needed to restore the wetland. Wildlife and sportsmen's groups also help fund restoration efforts.

The program is administered by the Minnesota Department of Agriculture through the Minnesota Board of Water and Soil Resources and the 91 local soil and water conservation districts. The RIM Reserve central office is in St. Paul. The staff includes a coordinator, an engineer, an accountant, and a real estate specialist.

The sign-up for Wetlands Restoration is usually conducted in the late summer or early fall at local soil or water conservation district offices. After the sign-up, a local screening committee reviews the applications, prioritizes them, and selects enrollees based on the amount of funds available.

The screening committee is chaired by a representative of the soil and water conservation district. Other agencies